

SOAP

and SANITARY CHEMICALS



In this issue...

Market for auto cleaners
expands in car laundries

★ ★ ★ ★

Soap trade marks — how
and when the law applies

★ ★ ★ ★

Water emulsion waxes —
purchasers give opinions

★ ★ ★ ★

Which disinfectant — hy-
pochlorite or quaternary?

★ ★ ★ ★

*Cover photo . . . J. L. Brenn
completes 30 years as pres-
ident, Huntington Laborato-
ries; past president, Chemical
Specialties Mfrs. Assn. and
board member, Assn. Amer.
Soap & Glycerine Producers.
See page 122.*

APRIL 1951

For
Specialty Soaps ...



SOLVAY

Trade-Mark Reg. U. S. Pat. Off.

CAUSTIC POTASH

LOW IN IRON and Other Impurities

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SOLVAY CAUSTIC POTASH

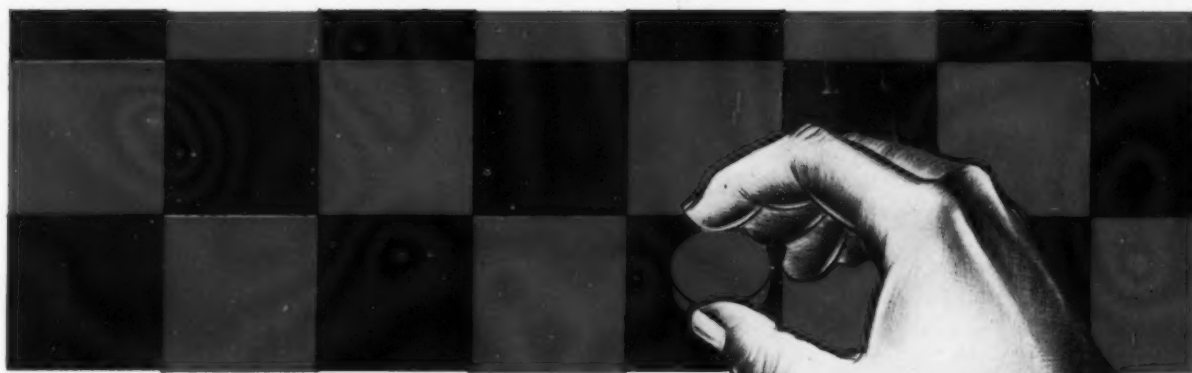
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Pick up greater profits . . . round out your line! Here is our popular, powerful Glytone to make of every prospect a customer, of every customer a friend.

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Schools, offices, factories, hotels, hospitals and restaurants are all discovering the new magic of quick-working Glytone. By cutting down on disease-carrying bacteria, Glytone reduces lost man-hours in industry, absenteeism in schools. By freshening stale air, Glytone improves relationships between doctor and patient, employee and employer, hotel and guest.

Start now to add Glytone to your line! You'll discover a huge public demand—a new pleasure in displaying the attractively labeled bottle.

For the asking, you will receive full information and a sample bottle of popular Glytone Air Sanitizer.

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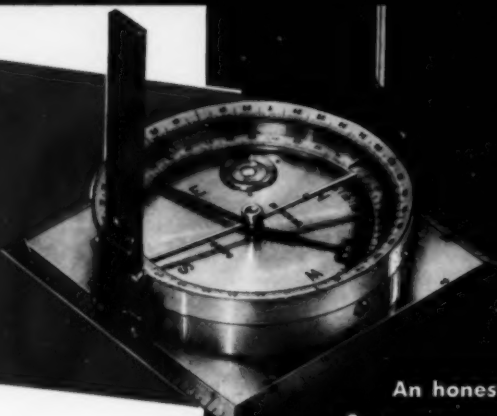
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APRIL, 1951

A GUIDE

TO WAX PRODUCTS PURCHASING

FOR PRIVATE BRAND RESALE



SELF POLISHING WAXES

Candy's Supreme—Candy's Supreme Special AS
Candy's DeLuxe—Bright Beauty—Candy's Supreme Special WR
Candy's Supreme Special WR-AS—Candy's No. 610
Seven floor waxes that are all-around top quality for any given traffic condition. Each imparts the finest protection and beauty to floors for which they are best suited.

Bright Beauty FLOOR CLEANER

An outstanding material for removing even the heaviest wax film and dirt. . . . Brings neglected floors "back to normal." The right cleaning agent to insure the most efficient floor maintenance.

Bright Beauty CREAM FURNITURE POLISH

A cream furniture polish that spreads easily, polishes without excessive effort and imparts a deep impressive lustre. Too, it permits repeated repolishing with a dry cloth saving reapplication time and again; truly a very economical polish of very highest quality.

Bright Beauty PASTE WAX

A paste wax that is properly blended and refined from excellent quality solids and solvents that produce the best drying time and thorough evaporation. A wax that is easy to handle, having "creamy" consistency and stability throughout its stocking and usage period.

Bright Beauty LIQUID (spirit) PREPARED WAXES

Complete line of spirit dissolved waxes that meet a wide variety of demands for durability, color and types of usages. Each its own "Dry Cleaner," they keep a surface waxed with a superb protective coating necessary to many difficult surfaces such as certain floors (where adaptable) bars, wallpaper, etc.

Bright Beauty GLASS POLISH & CLEANER and SILVER POLISH

As a Glass Cleaner (pink color) it applies evenly with little effort, wipes off easily with negligible "powdering" and produces an undeniable "feel" of cleanness to glass that is actually true in fact. Different in color only as Silver polish, it imparts a highly desirable lustre to all silver without abrasion and can even correct the abuses of scratchy, "quick-polish" inferior products.

Bright Beauty DANCE FLOOR WAX

Basic advantages are freedom from "balling up," thus does not gather dirt and impregnate the floor with hard spots difficult to remove . . . also is free from dusty effects. Adds the protective quality to expensive ballroom floors that means more "floor-years" to users everywhere.

Bright Beauty Heavy Duty PASTE CLEANER

Really cleans and scours more effectively and quicker than most scouring powders. Depending on application, it can clean to perfection even painted walls to provide a suitable repainting surface. 100% active, free from excessive abrasive quality, it frees almost every surface from all forms of foreign matter to perfection.

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We do not compete with our jobbers for consumer sales.
We sell only to distributors, except for experimental
accounts in Chicago essential to research.

An honest appraisal of floor wax products as we see it is offered to guide wax buyers who want the best quality money can buy...

1. BEAUTY AND DURABILITY

should be considered together. Initial appearance is important, but for a waxed surface to remain beautiful it must be durable. Durability depends not only on resistance to the abrasion of traffic, but even more so on resistance to the collection of dirt and to discoloring traffic marks. Durability is really measured by how long the waxed surface maintains a nice appearance before the necessity of complete removal and re-waxing.

2. ANTI SLIP

qualities are necessary in a good wax as a matter of safety underfoot. This important quality does not necessarily require the sacrifice of beauty and protection which are the foremost original reasons for the use of a wax. Look for the proper balance—a wax film which is not excessively slippery yet which is not tacky and does not excessively collect dirt.

3. WATER RESISTANCE

is important, particularly when considering the possibility of wet traffic and the necessity for frequent damp mopping for the purpose of removing surface dirt. Overdoing this quality means greater difficulty in applying multiple coats, of wax and may seriously increase the difficulty in removal when complete cleaning and re-waxing is necessary. Water resistance is important, but so is the quality of removability.

4. SOLID CONTENT

when expressed in percentage is not nearly as important as the quality of the solid content. When considering good quality, 12% of solids answers most needs for good planned maintenance programs. Two applications of 12% will give better results than one of 18%. However, the more concentrated material is useful for some programs of maintenance and particularly on "washed-out" floors, etc. Over-waxing should be avoided so that periodic complete removal will not be too difficult.

5. CARNAUBA WAX

is still the most important basic ingredient in our floor waxes. When refined and compounded with other important ingredients and "KNOW HOW," it aids materially in producing the most important features of a good floor wax...ALL AROUND QUALITY OF PERFORMANCE.

Wax Specialists for over 55 years
Candy & Company, Inc.
2515 W. 35th ST., CHICAGO

SOAP

and SANITARY CHEMICALS

Volume XXVII

Number 4

April 1951

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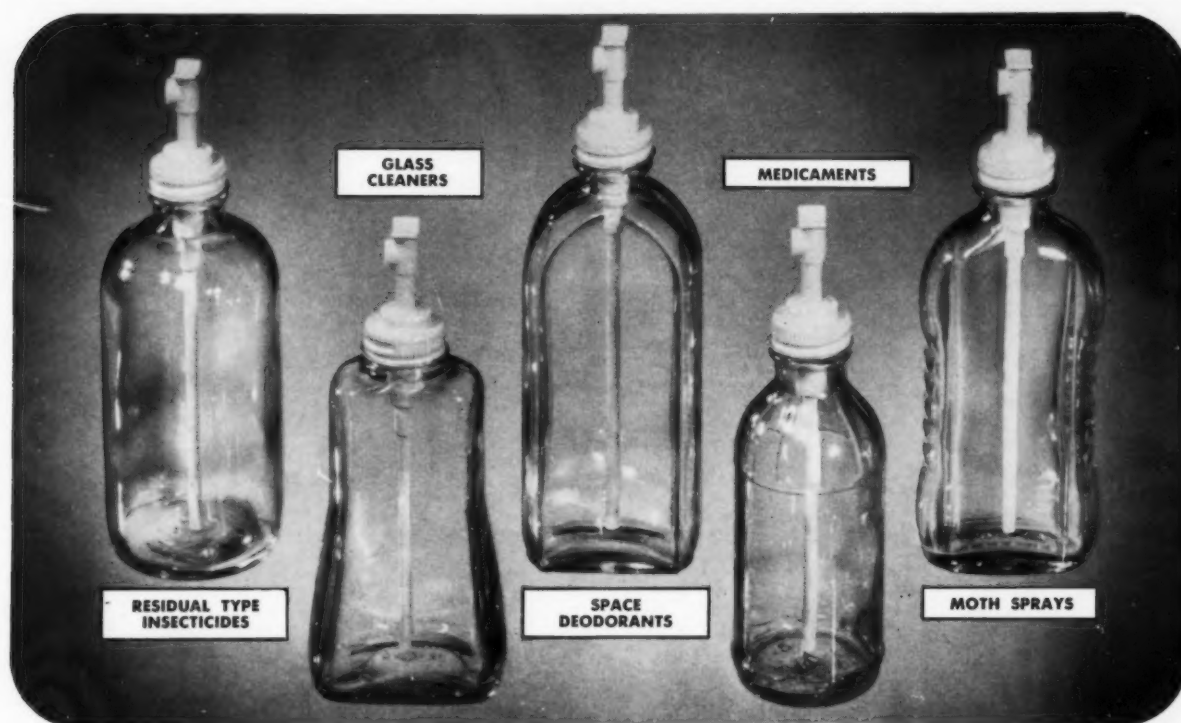
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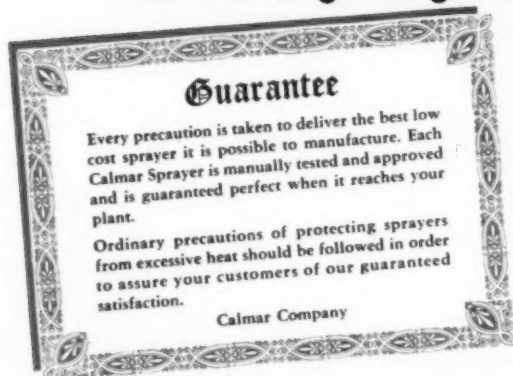
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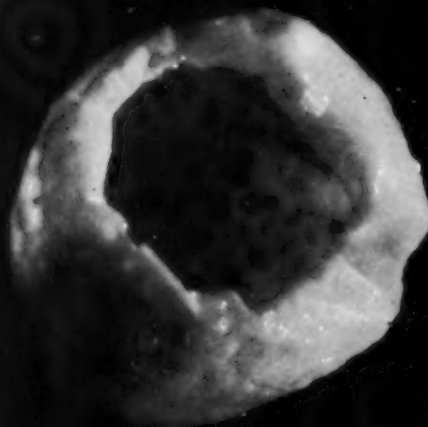
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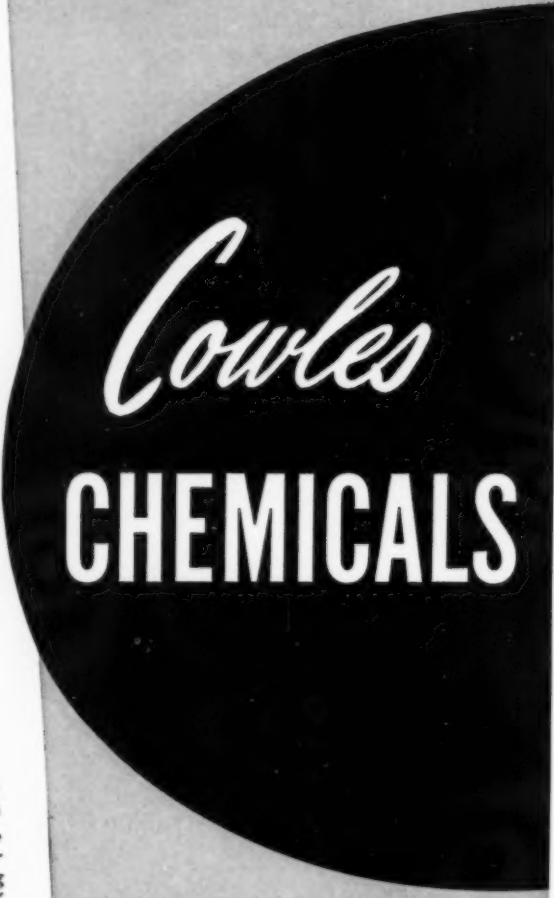
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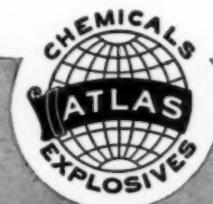
RENEX is completely compatible with soap, anionic, and cationic materials used in the formulation of cleaning compounds. It is highly effective in cold water or in acids used to protect certain fabrics and prevent trouble with fugitive dyes. It will not leave a filmy residue even after repeated washings over a long period and is recommended for compounding with soap to prevent curds or scum build-up on machinery, dishes, fabrics, glassware.

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APRIL, 1951

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About "Luminograms"

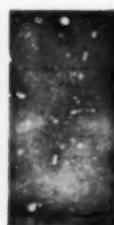
Test panels shown here were coated with mineral oil and then immersed in the cleaning solutions at 140° F for 10 minutes. When photographed under ultra-violet light, fluorescent oil residues invisible to the naked eye show clearly as white or grey areas, in proportion to the amount of oil residue on the panel. A perfectly clean panel, obviously, photographs black under ultra-violet light.

REMOVAL OF MINERAL OIL FROM STEEL 10 MINUTE IMMERSION AT 140° F

**SODIUM
METASILICATE**



CLEAN STEEL



CONCENTRATION OF CLEANER

2%

4%

6%

8%

10%

CLEAN STEEL

**95% SODIUM
METASILICATE
5% NACCONOL NR**



send for technical bulletins

Test results with various Nacconol-alkali mixtures on various metals are given in complete detail in a series of Nacconol Technical Reports. They may suggest ways to increase the sale of your mixtures to the metal working industries.

Remember — More Nacconol has been used for more years than any other synthetic detergent. No other detergent does so much for so little! Available in flake, powder and bead form. For prompt delivery and technical service on mixtures, write, wire or phone our nearest office.

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ALLIED CHEMICAL & DYE CORPORATION

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"Reg. U. S. Pat. Off."



Make your package a shopper stopper with attractive label and closure on the exactly right Duraglas bottle. Illustrated here is a 16-oz. amber Boston Round No. A-8320.

Turn a standard into a **STANDOUT!**

WOULD YOU ever guess that this striking container is an *inexpensive* Duraglas stock-mold bottle?

You can turn inexpensive Duraglas stock-mold bottles into attractive sales packages that are distinctly

yours by adding unusual closures and labels designed to get mass impulse sales.

At the Duraglas Center, talented designers create unique packages without sacrificing the advantages of stock-

mold containers—low original cost, strength and operating efficiency.

Call your local Owens-Illinois office today and find out how you, too, can take advantage of low-cost Duraglas stock-mold packages.

Duraglas bottles are protectors of quality

OWENS-ILLINOIS GLASS COMPANY • TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

APRIL, 1951

18C

Aromatic

*M*aybe you've used Pine Oil Disinfectant for years—maybe not, either way you have never used a pine disinfectant with all the true crisp *natural* pine odor of the pine forest retained... as in PALE PINE 8!!

PALE PINE 8 cleans, disinfects, deodorizes—all in one operation. Whatever you do don't confuse PALE PINE 8 with any other disinfectants you may have purchased in the past. PALE PINE 8 mixes with water to form snow-white, permanent, milky, fresh-odored solutions with increased germicidal powers. Premises can be kept clean, sweet-smelling and germ-free with the use of this ultra modern disinfectant.

Specify PALE PINE 8 from now on. There is no need to pay more for weaker, less effective, pungent disinfectants. PALE PINE 8 is the answer. Order it today and prove to your own satisfaction that at last there is something new in the disinfectant field.

You'll like it because of economy and your employees will like it because of its truly wonderful *natural* pine fragrance. It's easy to use—it's safe to use—after you try it you will agree it is the *only* disinfectant to use.

PALE PINE 8 is available in standard size bulk and small containers and can be delivered anywhere promptly.

ALWAYS INSIST ON PALE PINE 8

NATURAL PINE ODOR!

With Nature's Own Green Color!

PHENOL COEFFICIENT OF 8

America's Finest Natural Pine Oil Disinfectant

Available at your best Janitor and Sanitary Supply Houses.

If your favorite supply house doesn't have PALE PINE 8 in stock please write us and we will see that your orders are taken care of.

James Varley & Sons INC.



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SOAP and SANITARY CHEMICALS

DREW LAURIC ACIDS

AAB. 85%—90% LAURIC ACID FRACTIONATED—DISTILLED

AAB is a Lauric Acid of extremely high practical purity. It is both fractionated and distilled in order to provide higher concentration, better composition, and superior color and odor characteristics. It has very low iodine value and its color is stable at high temperatures.

AAB is ideal for detergents, wetting agents, insecticides, and soap products requiring a high degree of lauric acids. Pure metallic soaps of AAB acid are widely used in the cosmetic and drug industries.

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ABL is an exceptional value in Lauric Acids wherever concentrations up to 70% can be satisfactorily used. It is fractionated and distilled to assure concentration of 70% lauric acids, and stabilized to safeguard color on prolonged heating.

ABL is widely used in high grade cosmetic preparations, metallic soaps, shampoos, shaving creams, wetting agents, household detergents, 40% Liquid soaps, and in paste and other types of soap.

TYPICAL AVERAGE COMPOSITION AND DATA

products. Pure lauric acid and AAB acid are widely used in cosmetic and drug industries.

TYPICAL AVERAGE COMPOSITION AND DATA

PRODUCT	CAPRYLIC (C ₈)	CAPRIC (C ₁₀)	LAURIC (C ₁₂)	MYRISTIC (C ₁₄)	PALMITIC (C ₁₆)	STEARIC (C ₁₈)	OLEIC (C ₁₈)
AAB	2.0%	4.0%	90.0%	2.0%	0.0	0.0	2.0%
ABL	1.5%	3.5%	70.0%	13.0%	8.0%	1.0%	3.0%

PRODUCT	FFA	TITRE °C	IODINE VALUE	ACID VALUE	SAP. VALUE	COLOR 5 1/4" Lovibond
AAB	139-144	37.0 Min.	3.0 Max.	277-286.4	277-286.4	15.0/2.0
ABL	138-141	30.0 Min.	5.0 Max.	274.4-280.4	274.4-280.4	20.0/3.0

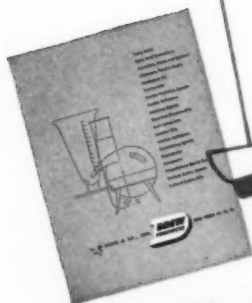
Distilled and Fractionated Fatty Acids:

OLEIC COTTONSEED STEARIC VRO

 CAPRYLIC

Distilled and Fractionated Fatty Acids:
 SOYA SAFFLOWER LINSEED OLEIC COTTONSEED STEARIC VRO
 COCONUT LAURIC CAPRIC CAPRYLIC

Write for reference booklet, "Drew Fatty Acids"



TECHNICAL PRODUCTS DIVISION

E. F. DREW & CO., INC.

15 EAST 26th STREET, NEW YORK 10, N. Y.

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WHY PAY HIGH PRICES FOR ESSENTIAL OILS?

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PERFECT FOR PERFUMING...

- LAUNDRY SOAPS
- WASHING POWDERS
- LIQUID CLEANSERS
- POLISHES, ETC.

NOW, MORE THAN EVER, JAVONELLA OFFERS THESE IMPORTANT ADVANTAGES!

*Write for
Sample and
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- It's a manufactured article . . . free from the price fluctuations of natural essential oils such as Citronella, Sassafras, etc.
- Its high quality never varies, enabling you to manufacture uniformly dependable products.
- Always lower in cost than the natural oils, particularly now with citronella prices on the rise, its use results in production economies and higher profits without lowering quality standards.



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STOCKS CARRIED IN PRINCIPAL CITIES

SOAP and SANITARY CHEMICALS



paper sculpture by goretta-egan

measure for measure....

... Niagara packs quality. This quality is the result of long experience,
persistent research, superior raw materials
and careful control of every phase of processing.

- NIALK* Liquid Chlorine
- NIALK Caustic Potash
- NIALK Carbonate of Potash
- NIALK Paradichlorobenzene
- NIALK Caustic Soda
- NIALK TRICHLORethylene
- NIAGATHAL*
(Tetrachloro Phthalic Anhydride)
- *Trade-mark



NIAGARA ALKALI COMPANY

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60
years
experience
serving
every
type of
soapmaker

'Way back in 1891, we pioneered
the production of phosphates at Carteret, N. J.

Today, from a nationwide chain
of plants, we supply many of America's
leading makers of soaps and
detergent mixtures from integrated
production of

Westvaco
TRADE

alkalis

CAUSTIC POTASH

45% Liquid
Flake and Solid

CAUSTIC SODA

Liquid 50% Standard and Rayon Grades

Liquid 70-73% Standard Grade
Flake and Solid, 76% Na₂O

CRUDE SODIUM SESQUICARBONATE

NATURAL SODA ASH

Light and Dense

PHOSPHATED CAUSTIC SODA

phosphates

ACID SODIUM PYROPHOSPHATE

Food and Technical Grades

CHLORINATED PHOSPHATE

DIPOTASSIUM PHOSPHATE

DISODIUM PHOSPHATE

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POTASSIUM PHOSPHATE LIQUOR

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TETRAPOTASSIUM PYROPHOSPHATE

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TRIPOTASSIUM PHOSPHATE

mixtures

Mixtures formulated to
order containing
phosphates, alkalis,
detergents, etc.



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 **SPRAY AWAY OLD FASHIONED "FLOOR KEEPING"**

HELP CUSTOMERS MODERNIZE FLOOR MAINTENANCE

Suggest

PECK'S MISTY FLOOR SHINE

Builds Profits... Builds Satisfaction!

- **Keeps floors cleaner, brighter, EASIER**
- **Reduces frequency of soap and water scrubs**
- **Makes sweeping easier, saves sweeping time**
- **Fewer waxings needed, reduces waxing time**
- **Controls floor dust for cleaner, healthier rooms**

Offer this better way to maintain floors. If your customers aren't using Misty Floor Shine now, there's extra profit for you in showing how this method saves them money.

See that they include it on their next order. It's another proof to them that it pays to do business with you.

Misty Floor Shine is made for modern "floor keeping." It keeps floors so they're easy to wax and sweep, and it lengthens the time between soap and water scrubs.

Users merely spray on Misty Floor Shine and burnish it in with a mop. Daily wiping with a treated mop then keeps floors glistening... holds dust down... protects floors against wear... gives luster without slipperiness.

Have Misty Floor Shine in your line. See how fast the sales mount. Misty Floor Shine is a high-profit item that sells in big volume.

"ONE OF BEST PROFIT MAKERS," SAYS CHICAGO FIRM

A Chicago janitor supply firm introduced Peck's Misty Floor Shine to his customers three months ago. He wrote recently: "Now we wouldn't think of suggesting items without putting Misty Floor Shine at the top of the list. It has become one of our best profit makers."

**WRITE FOR
FREE SAMPLE**
and for Peck's specialized
jobbers sales aid
folder.



Peck's PRODUCTS COMPANY

610 E. CLARENCE, ST. LOUIS 15, MO.

MANUFACTURERS OF SOAPS, DETERGENTS, SANITARY PRODUCTS

MAIL THIS COUPON NOW!

Peck's Products Company,
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Send Free Sample of Misty Floor Shine
and the Sales Aid Folder.

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Firm

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City & Zone State

**HAVE YOU TRIED
OUR**

**YLANG TAMATAVE
YLANG TAMATAVE SUPERIOR
AND
VETIVERT 2131**

**IF NOT, ASK FOR SAMPLES AND
QUOTATIONS.**

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in harmony...

with your private brands

The octave of PQ Powdered Silicates forms the right combination for your cleaning compounds and detergents. In this group are the unique alkali-soluble silica properties to add distinctive appeal to private brand cleaners. Check the score—

PERFORMANCE— Properly balanced soluble silica component of PQ Silicates steps up cleaning action—quick dirt dissolving, effective soil suspension, protection of the surface, no dirt re-deposit.

COMPATIBILITY— Good free-flowing mixers with other alkalies, soap, rosin, synthetic detergents, complex phosphates.

APPEARANCE— Uniformly attractive, clean, white granules and powders. Same quality, shipment after shipment, insures easy control in your formulas.

PACKING— Available in convenient paper bags, 100 lb. net; fiber drums of approximately 100 and 300 lb. capacity. (Fiber drums can be re-labeled and re-used.)

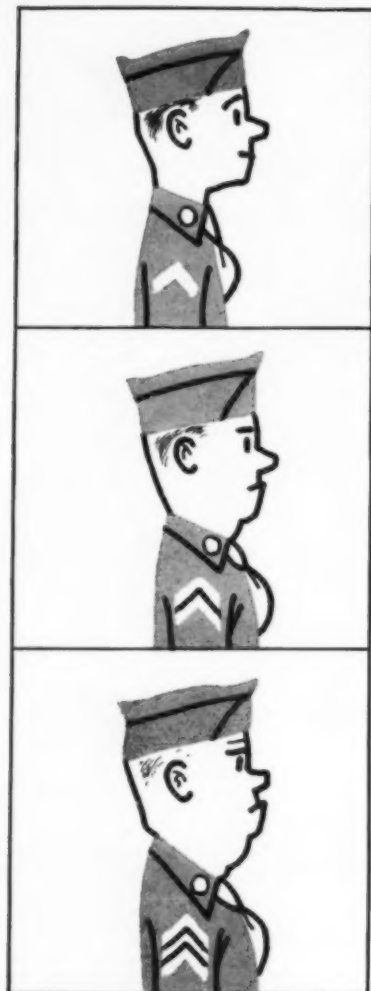
PHILADELPHIA QUARTZ COMPANY
1152 Public Ledger Bldg., Philadelphia 6, Pa.



- G Silicate ($\text{Na}_2\text{O} \cdot 3.22\text{SiO}_2$). Hydrated powdered (trisilicate). Rapidly soluble.
- GD Silicate ($\text{Na}_2\text{O} \cdot 2\text{SiO}_2$). Hydrated, alkaline powder. pH of 1% solution 11.5.
- SS-C-Pwd. ($\text{Na}_2\text{O} \cdot 2\text{SiO}_2$). Anhydrous powder. Dissolves in boiling water.
- SS-C-200-Special ($\text{Na}_2\text{O} \cdot 2\text{SiO}_2$). Anhydrous alkaline powder. Slowly soluble.
- Metso Granular ($\text{Na}_2\text{SiO}_3 \cdot 5\text{H}_2\text{O}$). Sodium metasilicate pentahydrate; white granules. Dissolves readily.
- Metso 99 ($\text{Na}_2\text{HSiO}_4 \cdot 5\text{H}_2\text{O}$). Sodium sesquisilicate (U.S. Pat. 2145649). White, granular, free-flowing. Vigorous cleaner.
- Metso 55—metasilicate detergent integrally mfg. with special water-softening and wetting ingredients.
- Metso 66—brown granular, metasilicate compound integrally combined with emulsifying ingredient.



We are holding for your request a copy of Bulletin 17-2 which describes the PQ Dry Soluble Silicates and Metso Silicated Detergents which are of interest to formulators of cleaning compounds.



Carbose promotes soap detergency, too

SODA ASH • CAUSTIC SODA • BICARBONATE OF SODA
CALCIUM CARBONATE • CALCIUM CHLORIDE • CHLORINE
HYDROGEN • DRY ICE • SYNTHETIC DETERGENTS • GLYCOLS
CARBOSE (Sodium CMC) • ETHYLENE DICHLORIDE • PROPYLENE
DICHLORIDE • AROMATIC SULFONIC ACID DERIVATIVES
OTHER ORGANIC AND INORGANIC CHEMICALS

You're probably familiar with the job
Carbose* can do for synthetic detergents.
Well, it lends a helping hand to soaps, too.

Both built and unbuilt soaps will have
increased soil removal and whiteness retention
when Carbose is included in the formula.
As little as from 3 to 5% Carbose
added to a soap may increase its soil removal
properties by 40% . . . may double
its whiteness retention.

In a built soap, Carbose increases the
amount of builder which may be added without
sacrificing whiteness retention
properties. Above a 3% concentration,
it increases soil removal. In any
concentration, it increases whiteness retention.
We've got the figures to back this up
. . . and we'd be glad to send them to you.

*Reg. U. S. Pat. Off.

WYANDOTTE CHEMICALS CORPORATION
Wyandotte, Michigan • Offices in Principal Cities



Wyandotte
REG. U. S. PAT. OFF.

SOAP and SANITARY CHEMICALS

to PERFUME MORE GALLONS
of Liquid Soap...
AT LOWER COST...

YOU CAN ACHIEVE important
perfuming economies with
MM&R Liquid Soap Perfume Oils
... because they dissolve clearly
without filtration in solutions
as dilute as 15% ... and because
they are priced at rock-bottom
levels despite their superior strength
and scent-appeal.

FREE TECHNICAL ASSISTANCE — The MM&R Technical
Service Dept. will be happy to recommend — or develop —
a perfume oil that will do the job you want within the
requirements of your budget! Just send a sample
of your unperfumed product and an indication of your price
limitations — an economical, sales-stimulating scent will be added
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PERFUME
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SINCE 1895... ONE OF THE WORLD'S GREATEST SUPPLIERS OF ESSENTIAL OILS
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LOS ANGELES: BRAUN CORP. • SEATTLE, PORTLAND, SPOKANE: VAN WATERS AND ROGERS, INC. • SAN FRANCISCO: BRAUN-KNECHT-HEIMANN CO.

APRIL, 1951

F LORASYNTH SPECIALS

SHAMPOO ODORS

OIL BOUQUET H.O. No. 8267

Water Soluble

OIL BOUQUET APPLE BLOSSOM

No. 8240

OIL BOUQUET ALMOND

No. 8262 Water Soluble

OIL CLOVER No. 888

SOAP ODORS

OIL MIMOSA No. 615

OIL BOUQUET S No. 61

OIL JASMIN No. 613

OIL BOUQUET C No. 613

OIL BOUQUET F. L. No. 300

For LIQUID SOAP

OIL BOUQUET E.C. No. 618 Water Soluble

OIL BOUQUET E.T. No. 618 Water Soluble

OIL HONEYSUCKLE No. 61 Water Soluble

OIL NARCISSUS No. 614 Water Soluble

Florasynth Research Laboratories are always at your service for the development of more practical and quality—improving materials for your production requirements.



Florasynth LABORATORIES, INC.
CHICAGO 6 • NEW YORK 61 • LOS ANGELES 21

DALLAS 1 • DETROIT 2 • MEMPHIS 1 • NEW ORLEANS 12 • ST. LOUIS 2 • SAN BERNARDINO • SAN FRANCISCO 7
Florasynth Labs. • (Canada Ltd.)—Montreal • Toronto • Vancouver • Winnipeg—Florasynth Laboratories de Mexico S. A. Mexico City



wherever you are...you're close to
DOW CAUSTIC SODA



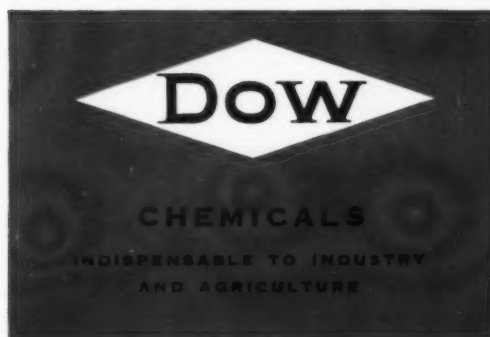
Depend on Dow distribution to keep your production steady and profitable.

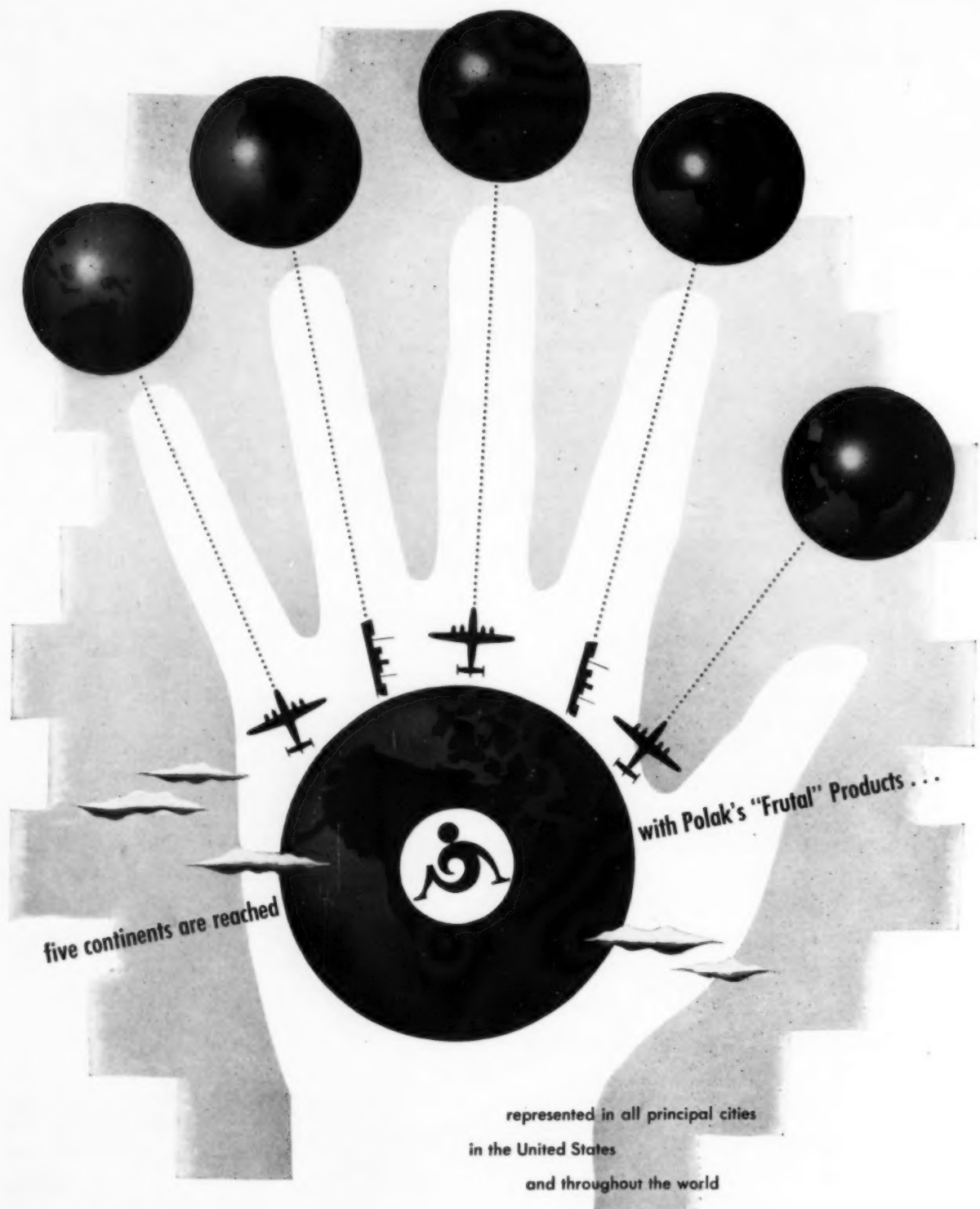
Dow maintains Caustic Soda Solution bulk tank distributing terminals in Carteret, New Jersey and Charleston, South Carolina. Caustic Soda Solid, Flake and Ground Flake are shipped from terminals in Chicago, Illinois, Port Newark, New Jersey, and Charleston. Caustic Soda production is funneled into these terminals from three large plants—in Michigan, Texas and California. By tank and box car, truck and ship, Dow caustic soda reaches your plant on schedule.

These facilities are working constantly to fill your caustic soda needs. Use them!

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New York • Boston • Philadelphia • Washington
 Atlanta • Cleveland • Detroit • Chicago • St. Louis
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Polak's Frutal Works MIDDLETOWN, N. Y.

ESSENTIAL OILS • PERFUME BASES • AROMATIC CHEMICALS



HYDREX 460 HYDROGENATED FATTY ACID

FOR "LOCKED-IN"

STABILITY

HYDREX 460 SPECIFICATIONS

Titre	(134.6 — 140.0°F) 57.0 — 60.0°C
Color 5¼" Lovibond Column (max)	4 Yellow — 0.4 Red
Iodine Value (Wijs) ..	1 — 4
Free Fatty Acid (as oleic)	100 — 103%
Acid Number	199 — 205
Saponification Value ..	201 — 207

Our hydrogenation process makes it possible in regular production runs to reduce the proportion of unsaturated compounds to a minimum . . . greatly improving the stability of the fatty acid *and the end product*.

For example, Hydrex 460 Hydrogenated Animal Fatty Acid is a water-white, stable, saturated fatty acid that is relatively rich in stearic acid (about 70.0%), with about 30% palmitic acid and practically free of oleic acid. Yes, with our hydrogenation technique we are producing high melting point, low iodine value fatty acids with controlled composition. Manufacturers of fatty acid esters, metallic stearates, special lubricants and other products where *stability* is essential, should investigate medium-priced Hydrex 460 Hydrogenated Animal Fatty Acid.



FACTORIES: DOVER, OHIO TORONTO, CAN.

consider its odor....

The ultimate success of any product is highly influenced by its odor.

Altho odor appreciation in such products as detergents, insecticides and other chemical specialties may be a subconscious influence—it is an effective influence on product acceptability.

Consider seriously the odor of your product from these stand points:

- EFFECTIVE MASKING.
- DESIRABLE ODOR LIFE AND VOLUME FOR THE PARTICULAR PRODUCT.
- SUITABILITY OF ODOR TYPE TO YOUR MARKET.

The advice and recommendations of the van Ameringen-Haebler staff of perfume chemists—experienced masters in odor engineering—can be of real help to you in determining the proper, effective perfuming of your product.

We solicit your inquiries.

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521 WEST 37th STREET
NEW YORK 18, N.Y.



AS THE EDITOR SEES IT

HAVING just returned from a visit to Washington, we come up with the overall impression that the confusion among government agencies in that busy city has not yet started to jell. We note this more particularly in the case of OPS than in NPA. But, then, OPS, we feel, has something of a tougher job on its hands, in fact, a job which we wonder can be accomplished under our present half-peace, half-war economy. Today, OPS faces the job of wrestling with the law of supply and demand,—and avoid being thrown itself. Personally, we would rather take on a couple of wild-cats.

Not for a minute, do we question the sincerity of the efforts of Mike DiSalle and his cohorts, nor their ability to solve big problems. But, this is all such a gigantic mountain of confusion, we doubt that it can be moved within a period of time necessary. Successful price control without rationing? We doubt it also. There are just too many cogs in the intricate supply and demand machine. Change one and it throws ten others out of gear,—and so on *ad infinitum*. Hold down prices and let costs go up,—and manufacturers quit or turn to something profitable. Or, as experience invariably shows, black markets.

So, after trying to find out specifically what Washington is trying to do to hold down prices and stop inflation, we came away with the feeling that they don't know themselves and that they are just as confused as we are.



LABELS for household soaps and detergents again would include a statement and percentage of each ingredient, according to a bill, HR 3254, recently introduced into the House of Representatives by a member from Nebraska. HR 3255, another bill by the same gentleman, would also bring soaps under the Food, Drug & Cosmetic Act by elimination of the present exemption. Both of these are companion

House bills to those introduced into the Senate a couple of months ago by Senator Guy Gillette of Iowa, and essentially the same.

Once again, we are anxious to point out how highly enlightening these ingredient statements on a package of washing powder will be to the average housewife. Those members of Congress who thought up the idea undoubtedly will win her undying gratitude. Just imagine, if you will, Mrs. McGuff about to do the family wash. She reads the label on the package and to her shocked amazement finds that the product is not an alkyl aryl sodium sulfate as she long had thought, but in fact contains 3-hydroxy-1-aminobutane.

But, wash McGuff's work pants in 3-hydroxy-1-aminobutane? Never! So she dashes down to the corner store and demands an alkyl aryl product. Her grocer being well versed in the intricacies of such matters,—he, like so many grocers, is a reformed Ph.D. in chemistry,—hands her the right product. She trips homeward happy and gay, and eternally grateful to Congress for protecting her against the greedy machinations of the soap manufacturers.



INDUSTRY advisory committees are blossoming forth in Washington like a fruit orchard in May. Advisory committees for almost every conceivable branch and segment of industry are being formed. Latest to come to our attention is the Milk Bottle Crate Industry Advisory Committee. This committee apparently is out to prove that any restriction on steel used in such crates would be false economy. Next we look for the formation of an All-Plastics Milk Bottle Crate Industry Advisory Committee whose high aim will be to prove that steel is badly needed for armament and that any restrictions on plastics for use in milk bottle crates would be false economy. The Salad Dressing without Cheese or Garlic Industry Advisory

Committee would be just another progressive step for which we look any day now.

On and on marches the parade as the industry advisory horde descends upon Washington toting its axes to be ground or swung at the necks of the obstreperous, depending upon circumstances. The Washington hotel keepers grin with glee. The days of NRA and WPB and OPA which they never even hoped to see again, are back with all their pomp and tinsel. Wining and dining are returned in full measure. Washington sales of whisky and gin bound upward. Taxi drivers, waiters, bellhops, *et al*, are deliriously happy. The studied nastiness of hotel room clerks has become even more so. All told, it's a great fiesta with everybody crowding forward to get on the stage.

Definitely, we believe in industry advice to the government on the million and one problems connected with current defense efforts, which problems appear to multiply almost daily. At the same time, we did not anticipate that half of business America and every minor segment of industry were going to get in on the act. We fear that we invite a complicated and top-heavy set-up where overlapping and conflicting interests could capsize the program. We had felt that our recent experiences during World War II had taught us a well-learned lesson. Now, we wonder what we learned and how much.



SOAPS, synthetic detergents and other household chemical specialty products advertised on television face further changes in package design and advertising approach when and if color TV becomes generally available. Such is the consensus of a group of national advertisers following a recent trial showing of CBS color television.

The possibility of tinted powdered synthetic detergents and soap products to use the advantages of color to the fullest suggests itself. Thus, colors might be employed to differentiate between light and heavy duty detergents.

Changes in the packaging design and color schemes of household products have been frequent during the past few years, mainly as a result of the advent and growth of the super-market and other self-service stores. Greater and more rapid package changes, stemming directly

from the development of television, may be expected from now on.



IF RAW materials are available, synthetic detergents conceivably could command at least seventy-five per cent of the "soap market" within two years with sales probably greater than a billion and a half dollars annually. But, the "if" of the raw material situation well could interfere with such a development even though public acceptance of synthetics has become such that this estimate of the near-future market potential is probably on the conservative side. Limits on the expansion of production capacity, as well as shortages of some chemicals, may also be a factor in containing the size of the market.

This view of H. E. Bramston-Cook of Oronite Chemical expressed before a meeting of the Chemical Market Research Association recently in Chicago startles us once more into a realization of how big our synthetic detergent baby has grown and is likely to grow. And this in turn brings into sharp focus a hundred-and-one production and marketing problems which face the soap and detergent industry in the years immediately ahead.

Some years ago when Frank Countway was head of Lever in the U. S., he was discussing the future of synthetic detergents and where the soap manufacturers would fit into the picture. He declared at the time that he did not care too much what the American housewife chose to use for the family wash, but whatever it was, the soap industry intended to make it and sell it to her. Bluntly, Mr. Countway was declaring that the soap manufacturers had no intention of being shoved out of the picture by the advent of chemical detergents. In short, "if you can't lick 'em, jine 'em!"

This, we feel, has become representative of both the thinking and acting of soapers, large and small, over the past decade. The march of detergent progress at times has been such as to make the average soaper slightly dizzy, but with few exceptions patterns have been set to accept and take advantage of this progress. The picture as drawn by Mr. Bramston-Cook is pretty good evidence of a general acceptance of the idea that "if you can't lick 'em, jine 'em."

THE Chemical Market Research Assn., meeting at the Sheraton Hotel, Chicago, Feb. 28, to appraise the outlook for production of soaps and synthetic detergents, reached the conclusion that prospects are reasonably bright for an increased volume, provided raw materials are available in adequate volume.

Synthetic detergent sales, a representative of this industry forecast, will rise approximately 50 percent, from the 1950 output of 1,071 billion pounds to 1.5 billion pounds in 1951, with shelf package sales, within two years, rising to "at least 75 percent of combined non-liquid soap and detergent sales."

For the soap industry, however, the conviction was as firmly expressed that, while detergent production will expand, sales in the next several years will become half soap and half synthetic detergents.

General theme of the one-day meeting was "Surface Active Compounds in 1951." At the morning session, with T. M. Welton of Oronite Chemical Co., New York, as chairman, attention was given by two speakers to the functions and characteristics of synthetic detergents and soaps, plus the effects of the changing raw materials picture. In the afternoon, under the chairmanship of L. H. Flett of National Aniline Division of Allied Chemical & Dye Corp., New York, six speakers discussed the applications of various surface active agents and their market prospects in 1951. An evening banquet was addressed by Col. Rhys Davies, noted British lecturer, whose topic was "What Is Next In World Affairs."

H. E. Bramston-Cook, vice president of Oronite Chemical Co., New York, in charge of eastern operations, spoke on "The Functions and Characteristics of Synthetic Detergents, and the Outlook for Raw Mate-

rials." The one great reason for most of the large volume of synthetic sales in the world today, he stated, is the fact that they do not yield water-insoluble compounds, while, closely related, is their free rinsing action in solutions of properly selected active ingredients.

Referring to the rapid expansion in public acceptance of synthetic detergents, Mr. Bramston-Cook recalled that in 1947, Oronite's board chairman, George L. Parkhurst, had told the Association of American Soap and

ages also limit soap production. He found one bright spot in the fact that one pound of a synthetic detergent alkylate can do a detergent job, in terms of household operations, equal to that of 3.25 pounds of tallow.

Examining the chemical supply picture, Mr. Bramston-Cook made these points: 1) Benzol is in tight supply but relief can be had by expeditious construction of petroleum plants of suitable type; 2) Alkylation stock is in adequate supply; 3) sulphuric acid is in short supply, but

urgent steps are being taken to relieve this somewhat; 4) Phosphate production has been constantly expanding and may be considered in relatively good shape; 5) Caustic soda is

in short supply, but will probably be available, as needed.

As to production capacity outlook, he stressed two points: 1) There is not enough alkylation capacity available for production of the necessary detergent alkylate. Some expansion is in process. More capacity may be added without too much difficulty. This step may be expected. 2) Manufacturing capacity, in terms of spray driers and sulphonation units in operation by the detergent industry, is inadequate to meet the indicated expansion. This deficiency is being rapidly overcome by construction programs now under way, which will probably make available units with a combined capacity in excess of estimated needs.

Foster D. Snell, of the New York research organization bearing his name, expressed agreement with Mr. Bramston-Cook that the prospective annual detergent volume will reach 1.5 billion pounds. But he emphasized that each had reached his conclusion from independent analysis of factors and there was "no collusion" between them.

After examining the many

DETERGENTS...

Their future sales trends and applications are discussed at the recent meeting of the Chemical Market Research Assn. in Chicago.

By H. H. Slawson

Glycerine Producers' convention that he expected the annual volume of detergent sales to reach one billion pounds in a few years. That figure was passed only three years later, in 1950, he pointed out, when sales reported by members of the Association of American Soap and Glycerine Producers, Inc., New York, alone amounted to over 1,071,000,000 pounds.

In 1950, synthetic detergents accounted for about 31 percent of combined non-liquid soap and detergent sales reported and about 51 percent of the package soap and detergent sales to housewives, he said.

"It seems entirely practical," he continued, "and, under present economic stress, possible, if raw materials are available, for the synthetic detergent share of shelf package sales to rise to at least 75 percent within two years, with annual sales by Soap Association members at about 1.5 billion pounds on an as-sold basis."

Higher estimates have been made and may be attained, he added, but in his belief the chemical shortages will limit both the rate and total of the expansion. This limitation, he felt, would be regrettable, since fat short-

conditioning factors, Dr. Snell said, "Soap will be freely available for the next several years at a price not much above the present level," and that the market will be split, 50-50 between soaps and synthetic detergents.

The present price level for soap stocks, he conceded, gives encouragement to petroleum-derived synthetics, but, barring a tremendous general price inflation, he predicted but little further increase in soap stock prices. (This was before announcement of roll backs in prices of tallow, grease and soap.)

Where bottlenecks in heavy chemicals occur, he said, synthetics can be expected to replace such soap deficits as may appear. He did not feel that withdrawal of soaps from the consumer market to meet government demands would be potentially important in 1951. Thanks to detergents, fats will be more generously available, he said, and he also foresaw a reasonable increase in glycerine production for the next several years.

Examining prospects for industrial applications of synthetic detergents, Dr. Snell pointed out that they have a big part in textile manufacture but that the laundry market is relatively limited. Because synthetics can be used in the presence of heavy metals, he said he was certain that other industrial uses will be developed.

He also spoke of prospects for a large tonnage of synthetics for use in washing buildings, streets and sidewalks. Future market demands, he commented, are all a matter of supply and demand and if people want detergents, their applications will grow.

At the afternoon session discussion of applications for surface active agents made it clear that through research the chemical industry has opened extensive new markets for its products, with every indication of still further important developments to come.

First to report in this survey was W. L. Rippeteau, manager of organic sales, Michigan Alkali division of Wyandotte Chemicals Corp., Wyandotte, Mich. He discussed the wide range of industrial uses for carboxymethyl cellulose (CMC). He conceded

that detergents are "sadly lacking" in whiteness retention ability, and explained his company's method for measuring detergency. Of great significance, he said, is the fact that no synthetic detergent used for heavy duty laundry work does not include CMC. This compound is also utilized in formulations for hand dishwashing cleaners, he said, but for machine dishwashing he rated it as of "no value." Continuing down a long list of possible industrial uses, he pointed out where CMC already does, or might, find a place and where its use would be of no value in industrial processing operations.

Dr. V. Dvorkovitz, director of laboratories for Diversey Corp., Chicago, in his discussion of cationic surface active agents pointed out how they have substantially improved the wetting power of water. One result, he recalled, is the "tattletale grey" theme of certain contemporary laundry soap advertisements. Another development is the simultaneous cleaning and mothproofing of woolen fabrics.

He discussed the shortcomings of cationic surfactants as contrasted to anionics and non-ionics, but contended that cationics are preferred, even at premium prices, because of some special properties or advantages.

He examined use of cationics in textiles, also their employment as micro-biocidal agents in surgical and dental practice, as well as in dairying.

Use of quaternaries as antibiotic agents in the industrial field will probably remain static until many questions are cleared up, Dr. Dvorkovitz predicted. He recommended building of markets on firm foundations, rather than expanding only to see the market collapse when inadequacies that result in withdrawals or loss of the new market are revealed.

Regardless of the outcome of certain applications, he was confident that the market for cationic surfactants can look forward to a steady and continued growth. This growth, he said, will come mainly from textile applications and the continued discovery of new specialties.

Developments of frothy flota-

tion agents is playing an important part in conserving the nation's mineral resources, said J. A. Barr, head of the derivative chemical sales department of Armour & Co., Chicago. The process is essential to the national economy and is a tribute to faith in chemistry and the ability of chemical research to find a means for meeting crises, Mr. Barr declared. He described Armour's activities in the production of froth flotation agents from fatty acids, explained their applications and assayed the bright picture of their future place in mineral recovery.

J. H. Reed, manager of commercial research, for Diamond Alkali Co., Painesville, O., discussed the properties of sodium silicate builders, whose use, he said, started during Civil War days, after supplies of rosin became short. Silicate builders, he said, may prove to be the answer to corrosion of aluminum washer parts. They are also favored in the household field for their maximum whiteness retention ability, as well as for their soil removal property. In commercial laundries their use is not large, but some combinations of soaps and synthetics give good results. Productive capacity has been unable to keep up with demand, but this may be overcome early in 1952, he said.

J. C. Harris of the central research laboratory of Monsanto Chemical Co., Dayton, O., outlined the chronology of phosphate builders, their availability, properties, synergistic effects and the application in which these characteristics are advantageous.

The textile industry pioneered the use of surfactants, according to Dr. D. H. Terry, of the textile service laboratory, Antara Products div., General Dyestuff Corp., New York. Surface active agents, he said, possess a wide variety of properties which have been useful in solving problems peculiar to textile manufacture. Among others, he reviewed their use for desizing, scouring, bleaching, degreasing, mercerizing, waterproofing and mildewproofing, mothproofing and proofing shrinkage. There is every indication, he said, that the present list of applications will continue to grow.

1.) First step in automobile laundry usually is application of synthetic detergent cleaner to body of car. Detergent is in barrel at right. Sometimes steam cleaning of white wall tires precedes "soaping" operation.

2.) Car is conveyed through "showering operation" by means of chain attached to front bumper. Sprays play on cars from a number of angles.

3.) Following rinsing, car moves through vacuum drier which "pulls off" most of the water. Final step is polishing of chrome and windows, shown on following page.

All National Aniline Division photos.



Auto Cleaning Products

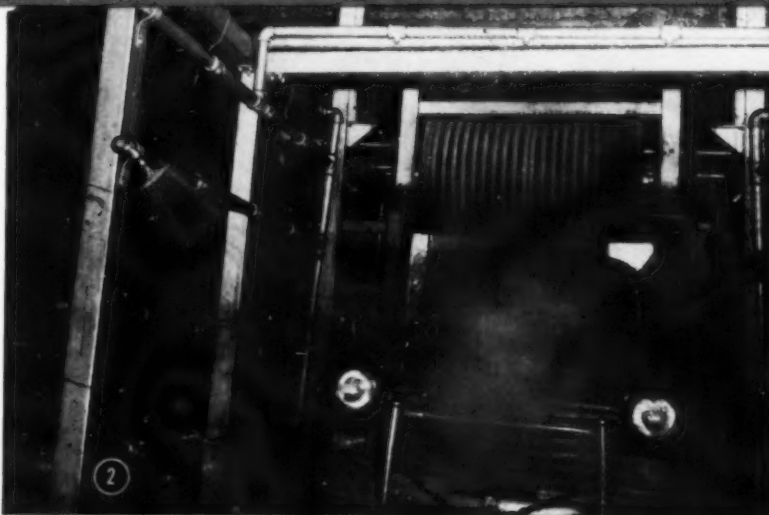
By Milton A. Lesser

Part I

THE manufacture of products for the cleaning and care of passenger cars and of commercial buses and trucks has become a very important part of the chemical specialties business. All over the country, car laundries have sprung up and have become an integral part of the community scene. A trip through the residential section of any town or city during the weekend will show dozens of youngsters — and their fathers — putting a high gloss on the family vehicle. There is a tremendous actual and potential market for automobile cleaning products.

Quoting statistics issued in 1949, Moore (1), notes that 102 million vehicles, including passenger cars, trucks and buses, have been produced since the turn of the century. Of these, more than 33 million passenger cars were still registered as being in use during 1948. About 42 per cent of these automobiles were ten or more years old, the average age of the passenger cars being between eight and nine years. With a potential market such as this, says Moore, it is easy to see why there are so many types and brands of cleaners, polishes and waxes available to the motoring public.

Garagemen, owners of fleets of trucks and buses and similar large scale consumers buy their maintenance and cleaning products from jobbers and from local manufacturers of



chemical specialties. The individual car owner usually obtains his cleaning supplies from the auto accessories store, from the department store or even from the local super-market. Since the war, however, the service station has become an important outlet for items needed for car care and cleaning. An idea of the sales potential has been given by Switzer. (2) He estimates that 1950's potential service station sales of polishes and waxes, radiator chemicals, and polish cloths, will be 24.3 million, 24.3 million and 3.6 million dollars respectively.

Quite a number of products are available to enable car owners to do a good cleaning job. Among them are washing compounds for the body and chassis, special road tar removers, body polishes, auto top dressings, polishes for chrome and other metal parts, and cleaners for windshields, windows and the plastic parts which are finding increased use on automobiles. Tire dressings and cleaners for whitewall tires are also in demand, as are items for the care of rubber floor mats. Care of the inside of the car also calls for the use of upholstery cleaners and stain removers.

Washing is the first step in a complete car cleaning job. It is a prerequisite to a good polishing job, for without such a washing, coarse dirt particles may cause scratches during the cleaning and polishing operations. Washing is also needed to remove road dust and restore the luster of a car that has been given a good coat of a resistant polish.

Most passenger cars are still washed by hand in the family driveway or in the wash areas of public garages; the cars being hosed down after washing with a suitable detergent. Growing in number and in use, however, are the so-called auto laundries which wash and dry a car mechanically in a few minutes. Such laundries may consist of long, tunnel-like structures, specially built for this purpose or they may be installed in a section of a garage. In either case, the cars are washed as they are pulled or conveyed through a series of brushes, sprays and air-blasts that comprise the laundering equipment. Standardized



Final operation is hand wiping and polishing of chrome and windows.

equipment for this purpose has been available for several years. (3)

Recently a consumer version of this automatic car washer has been made available and is on sale in department stores. According to the account given in *Life* (May 1, 1950), this equipment, known as the Maitland Car Washer, consists of a detergent and a 17-foot plastic hose inset with seven spray nozzles. The car owner dissolves a teaspoonful of the detergent in a bucket of water and applies the sudsy mixture to the car. A garden hose is then connected with the section of plastic hose which has been permanently clamped around the frame of the garage door, and the water is turned on, creating a spray. The car is backed into the garage through the arched spray, is driven out again and emerges clean. The entire job takes about six minutes.

Soap or Detergent?

CAR washing requires the use of an automobile soap or a detergent compound suitable for this purpose. In either case the agent should do a thorough job of removing dirt and grime and rinse freely without streaking. Because they often fail to meet this last requirement, especially in hard water areas, auto soaps are steadily giving way to compounds based on synthetic detergents. Nonetheless there are areas where soft water encourages the use of soaps. Most such

products consist of potash vegetable oil soaps. Usually colored green, these auto soaps are provided as jellies or as liquid concentrates for dilution with water prior to use.

However, the trend today is toward the greater use of synthetic detergents and their employment for the cleaning of automobiles, buses and trucks is now well established. As explained by Glickman, (4) these compounds clean rapidly and thoroughly and have little effect on the automobile finish. They are easily rinsed off and do not have to be wiped dry. All that is necessary is to sponge the car with a solution of the detergent, rinse off the lather and dirt and allow the car to dry; leaving the surface clean, glossy and free from streaks, etc.

Both the anionic and the non-ionic types of synthetic detergents may be used. Although other anionics are used as car washing detergents, the alkyl aryl sulfonates are probably the group most frequently employed. Usually available in admixture with varying proportions of sodium sulfate, the alkyl aryl sulfonates are supplied in liquid, paste, flake or bead form. The compounds are generally used as such, but the proportions required to make suitable auto washing solutions vary somewhat with the different products. Hence manufacturers' recommendations should be followed. Where more stubborn conditions are encountered, as might be the case with trucks

SOAP and SANITARY CHEMICALS

that are heavily soiled with oil and dirt, it may be advantageous to include small quantities of mild alkalis with these detergents.

The nonionics are generally provided in liquid form but are sometimes sold as pastes. When not of 100 per cent concentration, water is usually the diluent for the active ingredient. Here, too, the suggestions of the manufacturer should be followed with respect to the most suitable concentration for efficient car washing. Thus the producers of "Triton X-30" (Rohm & Haas, Philadelphia, Pa.) advise the use of a 35 per cent aqueous solution of this compound in the preparation of an automobile cleaner. A working solution is prepared by adding one to two tablespoonsful to each gallon of water. Also indicative are the suggestions for using "Antarox A-180" (Antara Products, New York City), which is described as an outstanding detergent for car washing. The recommended concentration for this use is 0.15 per cent. It is claimed that such a solution will not remove wax from the finish when both the surface and the solution are at moderate temperature.

In contrast, the nonionic detergent, "Renex" (Atlas Powder Co., Wilmington, Del.) is described as being especially suitable for making automobile cleaners when compounded with mild alkalis to produce free-flowing powders. The following formula serves to illustrate such use; the

compound being used in a concentration of one-quarter to one-half ounce per gallon of water:

	per cent
Detergent (Renex)	10
Sodium metasilicate	10
Trisodium phosphate	5
Soda ash	50
Sodium bicarbonate	25

For cleaning trucks and buses, the following compound is recommended:

	per cent
Detergent (Renex)	10
Sodium metasilicate	40
Soda ash	50

Following a current trend, one manufacturer (5) has produced a blend of a concentrated vegetable oil soap and detergent, made slightly alkaline to improve the cleansing action. The result is a multi-purpose cleanser which is claimed to be especially useful not only for washing the car body, but also for cleaning the greasy undergear, wheels, white sidewall tires and upholstery.

Quite a number of devices, some of them quite ingenious, have been developed to facilitate the car washing chore. Several of these mechanical aids consist of special brush or sponge units which are attached to a hose to improve the scrubbing and rinsing jobs. One such unit (6) consists of a sponge gripped in a molded plastic holder. When attached to the conventional garden hose it serves to scrub away dirt without danger of

marring the surface. A fountain mop, for washing vehicles and other objects, has been the subject of a recent patent. (7)

Other devices are designed not only to facilitate scrubbing and rinsing, but serve also to provide detergent as required. Illustrative is a newly patented brush with a fountain pressure supply and a soap chamber. (8) Other special brushes are available commercially. One such unit was described in the August, 1950 issue of *Soap and Sanitary Chemicals*. It is the "Swirl-O-Matic" automobile brush which features an automatic valve that feeds detergent, rinses and shuts off the water. The detergent is supplied in the form of a tablet.

Tabletted detergent is also used in a special mitt for washing autos. A couple of detergent pellets are put into this lamb's wool mitt, which is put on the hand and then dipped into water just prior to cleaning the car. When finished the car is rinsed with a hose. (9)

Chassis Cleaners

WASHING the chassis is an important part of any thorough auto cleaning job. In view of the much heavier accumulation of mud, dirt, oil and grease on the underparts of a vehicle, more specialized cleaning methods are required. Many garages and service stations are equipped to spray hot water solution under high pressure onto the underparts where mud and oil have caked. Alkali is frequently added to the solution, and soap is sometimes included to facilitate the cleaning operation. Often, however, a small proportion of synthetic detergent is added; both anionics and non-ionics being suitable. Such additions speed up the cleansing action and improve rinsing, whether used alone or in conjunction with alkalis.

These surface active agents are also used in the preparation of emulsion solvent cleaners, which are finding growing utility not only for cleaning the under carriages of automobiles, busses and trucks, but also on engines, greasy and heavily soiled floors, and the like. Acting as both hydrocarbon solvents and aqueous detergents, these

(Turn to Page 141)

Vacuuming interior of car is usually one of the first operations.





TO APPRECIATE fully the value of merchandising, we recognize and understand the national retail picture—the keystone portal—since it is, by and large, the very key to a large portion of all sales. As individuals in advertising and selling, we are directly affected by its structure. All our best thinking and planning is absolutely of no avail unless we find ways to keep our goods flowing smoothly through this retail artery.

And, in conjunction with this, — a word about national advertising. Seventeen years ago, we spent about three per cent of national income for advertising. But from 1934 on, it steadily declined, reaching a low of 1.4 per cent during the war years. Since the war it has never gone up more than two-thirds of our pre-war spending. The past ten years would average little more than half of our average expenditures during the decade that began with 1930. Except for the war years, our current expenditures for advertising are less, in relation to national income, than they have been at any time since 1880.

Does this mean a reduction in the effectiveness of advertising? Probably.

The "gift of gab" technique that marks some advertising is certainly impugning all the good there is in the rest of advertising. The unbelievability—the long stretch of the truth—the over dramatics—and the far-fetched logic of some of our advertising copy can do nothing for the long-range success of advertising except to build an immunity which I think, to an impressive degree, is already here. The irresponsible cliché that helps advertising lose its selling integrity is doing advertising a great deal of harm.

My second question is: could this one-third percentage reduction of advertising expenditure possibly mean lower marketing costs? Yes—because advertising is definitely related to the retail keystone portal.

My third question, in relation to reduced advertising expendi-

tures—is modern retail, and automatic selling by selection, affecting the value of advertising? In my opinion it is.

In the advertising decade between the phrases "consumer demand" and "consumer acceptance" lies a whole generation of advertising techniques and procedures, deeply buried, never to be resurrected. For the sake of clarity, let us review their meanings.

Consumer demand—insistent brand demand for a preferred product.



Consumer acceptance—"It's as good as the one I've been using; I'll take it; They're all the same anyway."

Now what about selling-by-selection and its effect upon advertising? There are presumed to be about 1,500,000 retail organizations throughout the nation. 6,000 of these organizations do about 65 per cent of all the retail business. In the food field, nine food chains operating 14,200 units, do about 60 per cent of the total chain store food business. Ten years ago, 26 per cent of the nation's food business was done selling-by-selection in self-service supermarkets. Today about 67 per cent of the total food store volume of more than \$25,000,000,000 is done with nearly automatic selling-by-selection. For a grand total of all retailing—400 giant retail organizations do about half of all the retail volume in the package-counter categories.

All this can mean only one thing—and I think it is very important to the business of advertising. The consumer has literally built the era

of the department store and the super-markets—a new selling age of automatic and near-automatic selling-by-selection. Before the days of selling-by-selection, the marketing pattern was very simple. Advertising that built consumer demand also built product distribution. It was this advertising over a ten-year period that gave American some of its best-known brand names.

Summarizing the two points I have already covered: 1. National advertising expenditure during the past ten years, in relation to national income, is about half of what it was for the preceding decade. 2. A large segment, about 65 per cent, of all retail business is concentrated in a comparatively few retail outlets with selling-by-selection the basic merchandising ingredient.

To these two summaries, add this third additional fact about our

Soap

national advertising picture: 3. In 1936 we had about 19,000 nationally advertised brands or companies in this nation. In recent years it has grown to about 26,500—all competing for the consumer dollar.

Where do we go from here? With more products competing with each other, and relatively less money to do it with, advertising in one sense has a greater selling responsibility than ever. That is why the believability, the integrity and the selling value of advertising, must not and should not be further impugned.

Selling-by-selection has already greatly lessened the consumer demand factor, and greatly strengthened the consumer acceptance factor, because so many products today are near-identical in use and service—as well as in advertising. I previously said that selection was the basic merchandising ingredient for a large portion of the retail business. This, of course, has diluted advertising's effectiveness compared with fifteen years ago. Adver-

* Based on an address before the Adcraft Club of Detroit, Hotel Statler, February 2, 1951.

tising, while still very big, is no longer the giant it used to be. With more competing brands that have more identical use and service characteristics—and with more and more product advertising aping itself all over the land—it is easy to understand, with only a smattering of basic facts, that advertising needs all the help it can possibly get. With the effect of brand demand continually lessening, all competitive business faces about the same sales problem—what to do about less and less consumer demand!

Here is what I mean: Alexander Smith, Mohawk and other well-known rug makers spending \$250,000 or more a year for advertising cannot possibly attribute more than five per cent of their total volume to consumer demand. The three or four best-known names in the appliance field wouldn't dare claim more than 30 per cent. In the soap business probably

about the same proportions. If you will reflect back to selling-by-selection, you'll easily see why.

What Is Merchandising?

WHAT is this merchandising, and how does it differ from advertising, though we all think of both as blood brothers? Advertising is the first half of the sales cycle that stimulates interest and moves consumers toward our brands—with an overall objective of consistent brand loyalty and consumer acceptance.

Merchandising, on the other hand, is the second half of the sales cycle that uses a special selling inducement to move our brands closer to the consumer. Its immediate objective—plus sales in the psychological zone of impulse buying and selling-by-selection.

To do it effectively at Lever Brothers, we operate our merchandis-

ing *partner* of advertising to make both our advertising and our sales-distribution dollars pay off with a higher percentage of returns.

I wish I could give you a yardstick by which all merchandising could be measured—but I can't. Each merchandising activity, depending upon its objective, sets its own standards of costs.

We plan our merchandising to offer grocers not only something of value for their customers, but to draft our plans and our activities in such a way as to do something of real value for them as well as for ourselves.

When we wanted to get mass displays on four of our products in many of the 250,000 grocery stores our salesmen call on, it took us nearly six months to develop and test the appropriate vehicle. With the final selection of a three-quart aluminum sauce pan—appropriately labeled, and

Merchandising

By Frederic Schneller
Lever Brothers Company

it reaches as high a level as in any other category. Here it might go as high as 50 per cent.

A recent duPont survey of super-markets indicates that 32 per cent of all baby foods and 24 per cent of all coffee are bought on unplanned impulse sales. Therefore, with brand loyalty decreasing, and selling-by-selection and unplanned impulse buying increasing, we come to this significant conclusion: We must meet these changing conditions with advertising that, of course, singles out the brand it is selling with plenty of emphasis on its own individual service or use characteristics. We do this to get as much brand loyalty as we can in the face of competitive near-identical products. What we don't get in brand loyalty, we get in consumer acceptance if we write our advertising with what I call the integrity and the worth of the sell! As the effectiveness of advertising has decreased, for the reasons I have given you—the effectiveness of merchandising has increased in

ing department as a counterpart to our advertising department—man for man—brand for brand—and with the cooperation of the same advertising agencies. Our advertising has done a great job of meeting changing circumstances by building the kind of brand loyalty and consumer acceptance which accounts for a great share of our volume. But where there is no brand loyalty, or where brand loyalty is weak, the consumer is faced with the obvious question, "What brand shall I buy?" because the great retail stores of the country are making their sales on selling-by-selection.

For us, good merchandising penetrates this area in two different ways. (1) By getting our brands off the shelf into easy to see, self-selling floor displays that always add up to plus sales; (2) by activating purchase of our brands with special inducements other than cut-price. We feel sure merchandising can and must play an important part—not as a substitute for advertising—but as an im-

filled with Lux Flakes, Rinso, Lifebuoy and Lux Toilet Soap, all at a combination value price—we at long last had reached our objective.

The story would be pretty much what you have already heard.

We face a new era in advertising—in merchandising—in selling, an era when creative selling steps out and takes the lead! Resourceful merchandising and advertising geared to the new era of selling can furnish many of the techniques and procedures. To say the very least—salesmen trained to hustle will find their hustling more effective when they sell goods into a store with a merchandising plan that moves goods out. There is one simple truth about merchandising that can alert us all to its opportunities. There is one sure way—and one sure way only—by which a manufacturer can increase his volume and hence his profits, without cutting prices. That one sure way is through thorough and sustained merchandising at the store level.

Recent developments in ESSENTIAL OILS

Part II

By Ernest Guenther, Ph. D.

Fritzsche Brothers, Inc.

EUCALYPTUS Oils: Because of the complexity of the subject, these oils can be discussed here only briefly. There are three types of eucalyptus oils, namely, the medicinal, perfumery and technical oils.¹

a) *Medicinal Oils*: These oils contain from 70 to almost 90 per cent of cineole as chief constituent, and serve, as such, in medicinal preparations, or for the commercial isolation of cineole. In Australia, the principal producing country, the oils are distilled from several high-yielding species of eucalyptus, for example *E. polybractea*, *E. sideroxylon*, *E. leucoxylon*, *E. australiana*, and *E. dives* var. "C" (fam. *Myrtaceae*). In Spain and Brazil the medicinal oils are derived almost exclusively from *Eucalyptus globulus*, although this species gives a lower yield of oil than the above-mentioned species. In the Belgian Congo medicinal eucalyptus oil is distilled from *Eucalyptus smithii*, a fair yielder of oil of good quality.

Australia produces by far the greatest amount of eucalyptus oils, supplying an annual average of 130,000 imperial gallons of medicinal oils. The trees grow wild and abundantly over wide sections of Australia. The foliage cut from these trees has to be distilled in numerous field stills distributed over the interior where ample material and water are available. During the last war the newly created defense industries, offering more attractive wages and better living conditions than the oil producers could manage,

absorbed much of the labor previously occupied with eucalyptus distillation. As a result, prices of all Australian eucalyptus oils rose sharply; they will probably remain high in the immediate future. Producers and exporters seem to encounter considerable difficulty in supplying the world market with oil.

Spain, for many years, has been producing medicinal eucalyptus oil, total annual production averaging 100 metric tons. Most of the oil is shipped to Central Europe; small quantities have reached the United States, partly via Portuguese ports. Prices lately have been high.

In recent years the Belgian Congo has appeared as a producer of medicinal eucalyptus oil, supplying over 20 metric tons annually. Some of the lots shipped from the Congo have been of very good quality, the result probably of careful rectification.

Another producer of medicinal eucalyptus oil is the State of Sao Paulo in Brazil; it supplies about 10 metric tons per year, mostly for domestic consumption. In Sao Paulo practically all eucalyptus trees are planted and regularly cropped. The new industry is well managed by a few expert growers.

Eucalyptus trees yielding medicinal oils grow wild, semiwild and planted in other parts of Latin America, but have not been exploited on a large, commercial scale. Small quantities of oil are produced in Guatemala, Mexico and Colombia; however, the amount is not sufficient to supply even the local markets.

b) *Perfumery Oils*: The so-called perfumery eucalyptus oils con-

tain as chief constituents not cineole, but citronellal, geraniol and geranyl acetate, in varying proportions. These oils exhibit an odor entirely different from that of the medicinal oils; their fragrance is sweet and refreshing. Hence the oils lend themselves to the scenting of soaps, cosmetics and technical preparations.

Most important of all perfumery eucalyptus oils is that derived from the foliage of *Eucalyptus citriodora*; this contains from 65 to 85 per cent of citronellal. The oil is used as such, or for the large-scale isolation of citronellal, which in turn can be converted into hydroxycitronellal. Although known for many years, oil of *Eucalyptus citriodora* has only recently come into commercial prominence, and is finding ever wider recognition as a very useful and valuable oil. It does not exhibit the harsh odor so characteristic of citronella oil. Australia now produces substantial quantities of this oil; the State of Sao Paulo in Brazil also supplies up to 30 metric tons per year, much of which goes to the United States and Europe. In Sao Paulo the trees are grown on large, well managed groves, and cropped regularly. The industry could be expanded substantially if demand and prices should encourage the growers. Small quantities of the oil are produced in Guatemala.

Another perfumery oil is that derived from the foliage of *Eucalyptus macarthurii*. Containing about 10 per cent of geraniol and 60 per cent of geranyl acetate, in addition to small quantities of butyric esters, this oil

¹ The Essential Oils, Vol. IV, pg. 437 ff. Published by D. Van Nostrand Co., New York, 1950.



A eucalyptus distillery in Sao Paulo State, Brazil.

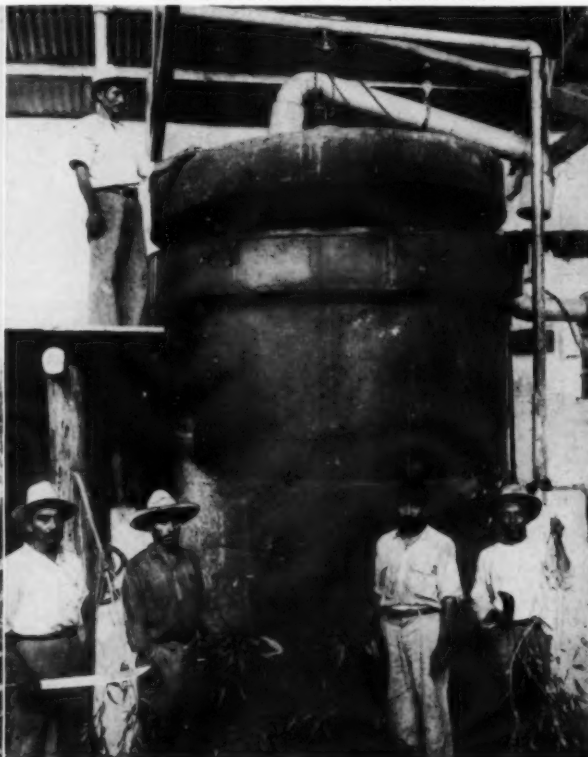
has a most pleasant, fruity odor. However, only small quantities are available at present, in Australia and Guatemala.

c) *Industrial Oils*: These oils contain piperitone and phellandrene as principal constituents. They are distilled, in Australia, from the foliage of certain eucalyptus species, such as *E. dives* Type, *E. dives* var. "A," *E.*

numerosa, *E. numerosa* var. "A," *E. australiana* var. "B" (*E. phellandra*). These oils are used for several technical purposes—mineral flotation, solvents, germicides, deodorants, for the manufacture of synthetic thymol or menthol, etc. No industrial eucalyptus oils have so far been produced in the Western Hemisphere.

GERANIUM OIL: There are two

Eucalyptus citriodora, branches only having been cut. Leaf growth is three to four months old. Laborer showing how the cut is made. (Guatemala) All Fritzsche Bros., Inc., photos



Larger distilling tank, takes 600 pounds of eucalyptus leaves. Laborers showing how the leaves are separated from the branches, and the leaves are used. (Guatemala)

principal types of geranium oil, both distilled from the flowering tops of *Pelargonium graveolens* (fam. *Geraniaceae*) and other closely related species. Of the two types of oil, the more important is the Réunion or Bourbon oil, produced on the small island of Réunion, located in the Indian Ocean, about 400 miles east of Madagascar. The other type, the Algerian or African oil, has now lost much of its former importance.

The Réunion oil² is produced in the highlands of that picturesque tropical island by a large number of small growers and sharecroppers, usually impoverished descendants of early French immigrants. Because of lack of running water and good roads in the highlands of Réunion the plant material, grown on numerous fields and patches of land, must be distilled in small field stills, almost all of which are quite primitive. Between 1936 and 1940 exports of geranium oil from Réunion averaged about 120 metric tons per year. In 1947/48, however, exports fell to 34 tons primarily for two reasons: the powerful sugar indus-

²*Ibid.*, Vol. IV, p. 675.

try has lured much of the farm labor to the lowlands, and the geranium fields have suffered a great deal of damage by terrific cyclones which in recent years have attacked the island repeatedly. The cyclone of January 25, 1949, for example, was of unprecedented violence and destroyed about 80 per cent of the geranium plantings. No wonder then that many growers became discouraged and have switched to other activities. As a result, production of the oil on the island has fallen off sharply in recent years and prices have risen correspondingly. Large lots are now practically unobtainable, and the quality of the shipments leaves much to be desired. No immediate relief is in sight.

The Algerian oil was formerly produced in large quantities, the peak year being 1928, when almost 143 metric tons of geranium oil were exported. Since then production in Algeria has diminished steadily, and in 1948 only 8.6 tons were exported. The cause of this decline has been the high cost of production now prevailing in Algeria. The latter is not a colony of France, but a *Département*, and all the social laws affecting the cost of labor in continental France apply automatically to Algeria also. Moreover, land in Algeria has become very scarce and expensive, all of the fertile terrain being devoted to the growing of grapes, cereals, fruit trees and early vegetables. As a result of the very high prices offered at present, a production of about 14 metric tons of Algerian geranium oil is expected for the May/June crop of 1951.

Moroccan geranium oil has recently made its debut on the French market. Its quality resembles that of the best Algerian oils; in fact, connoisseurs have declared it superior. Production of the oil was started only a few years ago by an enterprising expert grower near Khémisset, on the road between Rabat and Meknes.¹ Grave handicaps had to be overcome in the development of the new venture; in 1947, for example, a swarm of locusts ravaged about 50 hectares of nursery beds. Under favorable con-

ditions about 6 metric tons of this type of oil can be expected per year in the future. However, the oil is expensive, and can be used only in high-grade toilet preparations.

There is still another type of geranium oil, different from the Réunion and the North African, hence not included in the classification given above. This is the *Congo Oil*, produced in the Belgian Congo since about 1932. Supplies, however, have not been regular, and some of the lots reaching the world markets have been of sub-standard quality. The industry is not yet firmly established and production has been irregular, but at present the Colonial Government is making efforts to improve the quality of the oil, which later could be developed into a source of considerable revenue to the colony.

As regards the Western Hemisphere, no serious efforts have as yet been made by private interests to produce the oil on a large, commercial scale, although the soap and allied industries are keenly interested in this oil and could absorb large quantities regularly. The failure to exploit these possibilities may appear strange in view of the fact that many sections of Latin America offer good ecological conditions for producing the oil. The principal reason for the omission seems to lie in the lack of proper planting material. There are numerous fragrant species and varieties of *Pelargonium* which contain essential oil, but the oils derived from these varieties in regard to odor differ so much from the well known Réunion and North African oils that the trade cannot adopt them in established formulae. The problem, therefore, narrows down to that of procuring the proper planting material from Réunion Island, North Africa or Southern France (Grasse region). However, our friends in these countries seem to be loath to furnish us with a sufficient supply of slips or cuttings—despite the generous Lend-Lease, Marshall Plan aid and other forms of help the United States has given to these countries. The United States Department of Agriculture² has experi-

mented with the cultivation of *Pelargonium odoratissimum* L. in Florida and in southern California. Results have, in general, been favorable, but any such commercial venture would have to be based upon the use of mechanical cultivators and cutters, as the high wages of agricultural labor prevailing in the United States exclude any possibility of using hand labor.

GUAIAAC WOOD OIL: This is distilled from the heartwood of the trunk and heavy branches of *Bulnesia sarmienti* Lor. (fam. *Zygophyllaceae*), a medium-sized tree which occurs wild and abundantly in the Gran Chaco, the famed "Green Hell" covering parts of Paraguay and Argentina. The wood, being very hard, is occasionally used for the making of ornaments, canes, etc. Years ago logs were shipped to Europe for distillation of the wood in modern distilleries. After the first World War, however, freight charges became so high that the logs had to be processed locally, and a few distilleries in Paraguay started production of this oil.

At present there is one distillery in the suburbs of Asunción, capital of Paraguay, one in Filadelfia, center of a large Mennonite colony in the heart of the Gran Chaco, and another one about 20 miles north of Filadelfia. This last distillery is located right in the vast forests where the trees are abundant and readily available, obviating the added cost of hauling the felled logs out of the woods. The three distilleries now produce about 17 metric tons of guaiac wood oil per year. This output could be increased if the producers were encouraged by more attractive prices. These have been low, especially in view of the tremendous amount of labor and hardship connected with the felling of the logs, their transport out of the forests, lengthy distillation of the chipped wood, and poor yield of oil.

Only a few months ago the writer had occasion to visit the Mennonite colony in the center of the Gran Chaco, and was deeply impressed with the work carried out by these sincere, hardy pioneers who, with their fam-

¹ "The Essential Oils", Vol. IV, p. 723, D. Van Nostrand Co., New York, 1950.

² *Ibid.*, Vol. IV, p. 707.

Lemongrass fields near Los Cerritos, Guatemala. In center photo native harvests grass, which is shown after harvesting in bottom photograph.

All Fritzsche Bros., Inc., photos

ilies, now number about 9,000. Most of the older members were born in Russia (Ukraine, Volga and Siberia) and in the early 1930's emigrated to the Gran Chaco. For years they suffered incredible hardships—famine, tropical diseases, attacks by hostile Indians, etc.—but now the colony is firmly established, raising fine cattle, corn, and beans and producing guaiac wood oil as a side line. A stay among these simple, devout people reminds the visitor of accounts of the early pioneer days in Pennsylvania.

LAVENDER OILS: This very important essential oil is derived from the flowering tops of *Lavandula officinalis* Chaix, a fragrant herb of the family *Labiatae*, which grows wild on sunny mountain slopes, and is also cultivated in Southern France, particularly in the Départements Basses Alpes, Drome and Vaucluse.¹ Most of the lavender oil offered on the market originates from these regions. Total production in Southern France has varied greatly over the course of years; about 25 years ago it averaged 140 to 150 metric tons annually, but lately it has been only 45 to 65 tons. In recent months prices have risen spectacularly, the result probably of the heavy demand that since the outbreak of the Korean War has affected practically all essential oils that are short in supply. At present only limited quantities of lavender oil are available, and lots of good quality appear to have become very rare. It is hoped that the coming producing season in August will alleviate the situation.

Outside of Southern France, limited quantities of lavender oil (up to about 8 metric tons per year) are produced in the adjacent parts of Italy, but these lots seldom reach overseas markets under their proper label, being either consumed in Italy, or mixed with French oils and shipped abroad from Grasse as French oils. Production in England is almost negligible, the small quantities of oil formerly supplied by Hungary are no

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¹ "The Essential Oils", Vol. III, p. 440 ff. D. Van Nostrand Co., New York, 1949.



THE command of the trademark law is that no man shall ride unbidden on the running board of another's car. This riding lies in either selling your own as the goods of another, pretending your own manufacture is the manufacture of another or deceiving a buyer into the belief he is buying another's product.

Application was made a short time ago by Helene Curtis Industries, Chicago, formerly the National Mineral Company, for the registration of "Suave" as a trademark for a hair dressing.

The registration of this name was opposed by Norwich Pharmacal Company, New York, which in 1929 had registered "Swav" as a trademark for shaving cream. The ground of the Norwich opposition was, "the concurrent use of these marks upon the goods of the parties will be likely to cause confusion or mistake in the mind of the public or deceive purchasers."

Obviously, said the Commissioner of Patents, sustaining this opposition in August, 1948, no one purchases shaving cream for a hair dressing. The question is not the confusion between the goods themselves, but the likelihood of confusion in the identity of the producer or the source of the product.

Helene Curtis Industries appealed from this decision and in June of last year the Court of Customs and Patent Appeals asserted that the sole issue in the case was whether or not these two marks, "Swav" and "Suave" were so similar that their use would deceive purchasers concerning the manufacturer of the goods since both products possessed the same descriptive properties.

The use by the courts of the yardstick, "goods having the same descriptive properties," by which they seek to measure trademark interference is illustrated by the famous comment of a Federal judge that no trademark interference inhered in the use of a name as trademark for a lipstick that was the trademark of a steam shovel. The present trademark statute is that, "no trademark by which the goods of the applicant may be dis-

Soap and Cosmetic

tinguished from the goods of others shall be refused registration * * unless * * it consists of or comprises a mark which so resembles a mark registered in the Patent Office or a mark or trade name previously used in the United States by another * * as to be likely * * to cause confusion or mistake or to deceive purchasers."

The registration of "Shavel" as a trademark for razor blades was granted in spite of the opposition by the proprietor of "Shav" as a trademark for shampoo, since razor blades and shampoo do not have the same descriptive properties. The registration of "Lan. o. sheen" as a trademark for a cleaning preparation for fabrics was refused as confusingly similar to "Lustersheen" a trademark for a cleanser of silks and woolsens.

In its decision that "Suave", the trademark of Helene Curtis Industries for hair dressing, and "Swav" for Norwich Pharmacal's shaving cream were confusingly similar, the court adopted as its authority a decision rendered twenty years before. That decision pertained to a mouth lotion possessing the same descriptive properties as deodorants, cold creams, vanishing creams, shampoos, skin soaps and similar products. The application in that case had been made for the registration of "Molo" as a trademark applied to goods "used for mouth wash and breath purifier." Sixteen years before "Poro" had been registered for toilet goods by another producer. The late comer was denied the right to "Molo" as a trademark. The court said that while it was apparent the goods were not identical, they had common characteristics which brought them into the same class. "There are such attributes of similarity in the inherent characteristics and such similarity in their use and in the manner in which such goods are

ordinarily sold and handled as to bring them within the term 'merchandise of the same descriptive properties.'"

"Mercirex" Case Cited

WHEN, however, Mercirex Company a few years ago applied for the registration of its trademark "Mercirex" for "medicated cream or ointment for use in the treatment of diseases and disorders of the skin," the application was opposed by United Drug Company, Boston. "Mercirex," the drug company claimed, interfered with its registered marks, "Rexall" and "Rex," which were applied to medicinal and toilet preparations.

"It is true that the word 'Rex' this opposer uses as a valid and technical trademark," the Commissioner of Patents said, "does form one syllable of 'Mercirex'. A known mark, he added, cannot be appropriated and rights acquired by the mere addition of words, syllables or other features. The comparison of these marks, however, does not give this impression. The marks differ to such an extent that there is no reasonable probability of confusion in the trade from their contemporaneous use on the goods involved."

United Drug Company appealed. In May of last year the appellate court sustained this decision of the Commissioner of Patents. The court said of the interference claimed by the drug company: "Other than the similarity between the contested marks in the use of the word 'Rex' there is no suggestion that the Mercirex Company, in the adoption and use of its mark, has not acted from the outset in good faith. There are specific differences between the goods of the parties as well as certain pronounced differences between their contested marks."

The same conclusion followed the opposition by Oakite Products Co.,

Trademarks

By Albert Woodruff Gray

New York, several years ago to the registration of "So-White" for use on a powdered hand cleaner by H. Kirk White & Company. Oakite Products

protested that this name was confusingly similar to "Oakite" as both were applied to cleaners marketed in packages in powdered form.

Trademarks Defined

By Paul D. Boone

CONFUSION exists in the minds of some persons between trade-marks, trade-names and copyrights. A trade-mark is a distinctive word, name, symbol or device or any combination of these, used to indicate or identify the manufacturer or distributor of a particular product. Rights in the first are created by use, not by mere adoption. To be valid a trade-mark must be used on the goods or their containers, or upon tags or labels affixed thereto or on displays associated therewith, and the goods must be sold in commerce.

A copyright is a property right which arises out of a grant by the U. S. Government. The trade-mark is also a property right but it comes into existence only through use by its owner as a distinctive mark in connection with the sale of a particular product in commerce. A trade-mark as such is not copyrightable, and as one writer has pointed out: "although a copyright label or print contains a trade-mark, this does not give greater weight to the trade-mark", and it in no way has any relation to the requisites of a valid trade-mark or the U. S. registration of a trade-mark.

A trade-name identifies and distinguishes a business. Although a trade-mark may be embodied in a trade-name, such as the surname portion thereof, its functions as a mark are different. One writer¹ has stated

¹ Robert "The New Trade-Mark Manual", p. 5-6.

aptly: "The functions of a trade-mark are three-fold; the function of origin, the guarantee function and the function of advertising and selling". The first means more aptly these days—the same origin, the second—assurance that the quality is the same; the third today has made trade-marks "one of the most valuable of business assets".

What U. S. Registration Adds

RIGHTS in a trade-mark, as pointed out above, are acquired by use on the part of a natural or juristic person not merely by adoption; and the use must continue if the rights are to continue. The right to use is not granted by the U. S. or a state government. Furthermore, to receive protection in the courts, it is not necessary that a trade-mark be registered. There have always existed the common law rights. But federal T.M. acts, particularly the 1946 Act, afford incentives to take out U. S. registration.

Perhaps one of the two most important incentives, is the feature of incontestability. If a registered trade-mark has been in continuous use for five consecutive years and the owner then files an affidavit in the Patent Office, the right to use the mark becomes incontestable. After that, the certificate has the weight of conclusive evidence of the registrant's exclusive right to use; and that cannot be overturned unless (1) the mark has

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This opposition by Oakite Products to the registration of "So-White" was an incident in a campaign that company had successfully waged against the registration of a series of interfering marks. These included: "Novite," "Borite," "Globerite," "Ozite," "Florite," "Colite" and "Soakwhite," in which had appeared the letter "o" and the suffix "ite."

In the trademark litigation over the name "Novite" of Buckeye Soda Company it was brought out that Oakite Products Incorporated in twenty-five years in the marketing of its "granulated chemical cleansing powder" under the name "Oakite" had spent approximately \$2,000,000 on advertising. In a denial of the application of Buckeye Soda Company for registration of "Novite" the court asserted that since the general purpose of the trademark law was to prevent one person from passing off his goods or business as the goods or business of another, the purchasing public ought not to be required to dissect trade-marks to save itself from confusion and deception.

Referring to the similarity of these words particularly, "Oakite" and "Novite," the court added that while Oakite Products was not entitled to a monopoly of the suffix "ite," when any new comer in the field adopted and used a mark with the suffix "ite" and a prefix not sufficiently dissimilar to prevent a confusing similarity of the marks as a whole, the earlier trademark owner, in opposing the registration of the more recent mark, was entitled to relief.

A few years later this same court emphasized the economic advantage in the selection of trade names and marks as free as possible from any taint of interference. The court said: "We, in common with other courts, frequently have had occasion to point out

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WHAT'S



Left: New five-ounce refillable polyethylene plastic "bottle" for "pHisoHex" detergent cream made by Winthrop-Stearns, Inc., New York. The product contains three percent hexchlorophene, based on total weight. "Squeezable bottle" by Plax Corporation.



"Little Lady's Bubble Bath Cottage," above, a spring novelty designed for children, is the latest addition to the line of Helene Pessl, Inc., New York. Colorful, cardboard cottage, with cutout windows opens at top. It contains 15 packages of bubble bath powder. A potential dollhouse, item retails for \$1.



To achieve greater uniformity in bottle, label and closure designs to establish strong family relationships between its products, Eetter Brushes, Inc., Palmer, Mass., has redesigned its packages for personal toiletry items including concentrated shampoo. Stock, round, toiletry bottles with applied color labels are used throughout the line. Bottles, labels and Empress plastic closures are supplied by Owens-Illinois Glass Co., Toledo, O.

NEW?



"Joy," right, new liquid detergent made by Procter & Gamble Co., Cincinnati, was introduced at a press showing in New York recently. This completed national distribution of the product, which is packaged in a distinctive glass bottle that holds six ounces of the detergent and retails for around thirty-two cents.



New addition to the Voo Doo line of Exterminator Products Corp., Jersey City, N. J., is a warfarin rodenticide known as "Voo Doo 42." Also shown is a new counter display (left) for Exterminator Products Corporation's "Voo Doo White Magic Insecticide."



New "Spandy" disinfectant made by G. N. Coughlan Co., of West Orange, N. J., is now being readied for national distribution. Pint sizes retail for around 49 cents; the quart bottle sells for 97 cents in hardware stores. In addition to retail packages, "Spandy" is put up in gallon containers and 50-gallon drums to sell for \$2.50 and \$2.00 a gallon, respectively. These sizes are for distribution through sanitary supply distributors, etc.





JOSEPH TURNER & CO.

CAUSTIC SODA
CAUSTIC POTASH
SODA ASH
POTASSIUM CARBONATE

SALT
SODIUM BICARBONATE
SODIUM METASILICATE
SILICATE OF SODA
BORAX

DI SODIUM PHOSPHATE
TRI SODIUM PHOSPHATE
TETRA SODIUM
PYROPHOSPHATE
SYNTHETIC DETERGENTS

COCOANUT OIL
COCOANUT FATTY ACIDS
COTTONSEED OIL
RED OIL
STEARIC ACID

ROSIN
SOYA BEAN OIL
TALLOW

*Your road to better
chemicals... plus*

FOR THE SOAP AND ALLIED INDUSTRIES

Our customers get a *plus* with every order . . . that *plus* is service facilitated by stocks located in strategic cities. Our centrally located Chicago office gives fast, complete service to the Midwest and West Coast areas. And that *plus* is in stocks of every raw material necessary for the manufacture of soap and allied products, available at the right price for immediate delivery to your door.

AT YOUR DISPOSAL: Our experienced technical staff and facilities. Inquiries to any one of our offices will bring prompt and courteous response.

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Wayne Soap Co. Sold

Wayne Soap Co., Detroit, was sold recently to Guy W. Motter, Robert J. Clark and Sanford Ross, all of whom have a financial interest in the business and will act as co-owners and operators. The firm was established 50 years ago by Waldo Behr, who died in 1949. His brother, Edgar, retains and continues to manage Wayne Chemical Products Co., a separate organization. The new owners state that the business will be conducted as it has been in the past, with close contact maintained with the butcher trade. The firm's operations cover the metropolitan Detroit area, Lansing, Mich., Toledo, O., and Windsor, Ont., Canada.

Rodway Distributes All

Rodway Sales Corporation, 99 Hudson Street, New York, have announced recently their appointment as exclusive sales agents for the grocery trade in Greater New York for "All," synthetic detergent, manufactured by Detergents, Inc., Columbus, O. This detergent is recommended for use in automatic washing machines. An intense selling campaign will be undertaken by both Rodway and Detergents, Inc.

Dampier Lever V.P.

J. L. Dampier, marketing director of Lever Brothers, Ltd., Toronto, Canada, was elected vice-president of Lever Brothers Co., New York, it was announced March 2. He is in charge of detergent and shortening sales. Mr. Dampier joined the Canadian Lever firm in 1936 as a member of the advertising department, becoming advertising manager three years later. He served five years with the Canadian Army and was decorated by the British and Dutch Governments.

On his return to Lever Brothers, Ltd., in 1945, he was appointed general sales manager in charge of all soap

brands. Two years later he became sales director with responsibility for all soap marketing activities. In 1950 his



J. L. DAMPIER

scope of operation was enlarged to include other products, and he was appointed marketing director.

Mr. Dampier is a member of the Advertising and Sales Club of Toronto and the Association of Canadian Advertisers. He succeeds Walter W. McKee, who has resigned, as vice-president.

Attacks Soap Coupons

Soap coupons mailed to housewives were attacked recently by the Canadian Association of Consumers. In its March bulletin the Association inquired if householders approve the policy of soap companies "giving away cash value coupons at the same time as they raise the prices of their products."

If customers continue to cash these coupons, the Association bulletin points out, they receive a cash bonus when making a purchase, but "the manufacturer recovers that cash from (the buyers) through increased sales at prices which cover the cost of premiums. The Association recommended consumers discourage the system by ignoring the coupons.

Mennen Names Colson

Leonard V. Colson, formerly assistant advertising manager, was recently named advertising manager of Mennen Co., Newark, N. J. At one time he was display manager of Colgate-Palmolive-Peet Co., Jersey City, N. J.

No Potash Soap Committee

The Office of Price Stabilization is not considering the appointment of an Industry Advisory Committee for potash and liquid soaps at this time because of the pressure of time on this and other problems, it was learned recently. The agency is reported to be "conscious" of the situation on potash and liquid soaps, faced as manufacturers are with a ceiling price on the finished product but not on the most important raw materials, coconut oil or coconut oil fatty acids. A solution is reportedly being worked out, and relief is expected to be available shortly.

Brewery to Make Soap

Plans were announced March 22 for the immediate conversion of the U. S. Brewing Company's brewery at Red Bluff, Calif., into a glycerine and raw soap plant.

The plant is owned by Henry Oeste of Woodland, Yolo County, also owner of the newly organized Oeste Chemical Co.

Mr. Oeste said the remodeling would cost approximately \$75,000 and was scheduled for completion early in April. When in full operation the plant will employ three shifts, totaling about 60 men.

Frank Wickham will be the manager, assisted by Otto Brink. Henry Presby will superintend operations. It was announced that a glycerine still, rendering kettles, and a 50-foot drier would be installed to enable the plant to manufacture glycerine for defense purposes.

PINE OIL

for soaps, cleaning compounds, disinfectants
SMELLS CLEAN...CLEANS CLEAN



HERCULES POWDER COMPANY 961 Market Street, Wilmington, Delaware



NC51-1

T. G. A. Set to Meet May 15-17

PAPERS on the effect of hard and sea waters upon the cleansing action of shampoos and problems in the perfuming of aerosol dispensed products are among those to be presented at the 16th annual meeting of the Toilet Goods Association, being held Tuesday, Wednesday and Thursday, May 15-17, at the Waldorf-Astoria Hotel, New York. An innovation of this year's meeting is the golf tournament to be held at Winged Foot Golf Club, Mamaroneck, N. Y., May 14. The winner will be presented with the Cecil Smith (former head of Yardley of London, Inc., New York) Memorial Trophy at a luncheon on May 16.

The theme of the T.G.A.'s convention is "How Far?—How Fast?" The morning of the first day (May 15), the program calls for the annual report of the president, Joseph Keho of Dorothy Gray, Ltd., New York; a question and answer panel by members of the T.G.A. staff follows with S. L. Mayham, H. D. Goulden, Hugo Mock, F. Weaver Myers and John P. Currie participating and H. L. Brooks, presiding; luncheon, featuring presentation of the Charles S. Welch packaging award plaque. The afternoon session on May 15 will feature a panel discussion on distribution. Members of the panel will be experts on the subject both from the standpoint of the theory of distribution and the methods of distributing toilet goods through the various outlets and especially the newer and more unusual outlets re-

cently finding greater importance.

A panel discussion of what the future holds for supplies of raw materials, packaging and other supplies will feature the morning session of the second day of the meeting. Representatives of supply firms will participate in this panel. A closed meeting that afternoon follows the May 16 luncheon at which the Cecil Smith memorial golf trophy is to be presented to the winner of the May 14 tournament.

Thursday, May 17, will be given over to the spring meeting of the Toilet Goods Association's Scientific Section. It is at this session that the papers on perfuming aerosols and effect of hard water on shampoos will be presented. The latter is by G. Barnett and D. H. Powers of Warner-Hudnut, Inc., New York; the former by Victor Di Giacomo of Givaudan-Delawanna, Inc., New York. The Fragrance Foundation holds its annual meeting on the 17th in another part of the hotel.

House Soap Bills

Two bills designed to bring soap within the scope of the Federal Food, Drug and Cosmetic Act were introduced in the U. S. House of Representatives recently by Rep. Miller of Nebraska. HR 3254 would amend the Act by adding another section requiring that any soap or other detergent carry a label bearing the common or usual name of such soap or detergent and in case it is fabricated

from two or more ingredients, the common or usual name and percentage of each such ingredient (except that coloring need not be specifically named).

HR 3255 would strike out from the definition of cosmetics: "except that such term shall not include soap" and require the same labeling statements as those called for in HR 3254. Both bills have been referred to the Committee on Interstate and Foreign Commerce.

Similar bills were introduced earlier this year in the U. S. Senate by Sen. Guy M. Gillette of Iowa. The Gillette bills, which correspond to those introduced in the Senate last year by him, are SB 345 and SB 343.

Gen. Aniline Advances Two

General Aniline & Film Corp., New York recently appointed Dr. J. Charles Moessinger as executive assistant to the vice-president in charge of operations. Dr. Stiles M. Roberts, associate director of the company's central research laboratories at Easton, Pa., has been named to succeed Dr. Moessinger as research coordinator for dyes and intermediates at the Rensselaer, N. Y. plant.

David C. Ball Is Dead

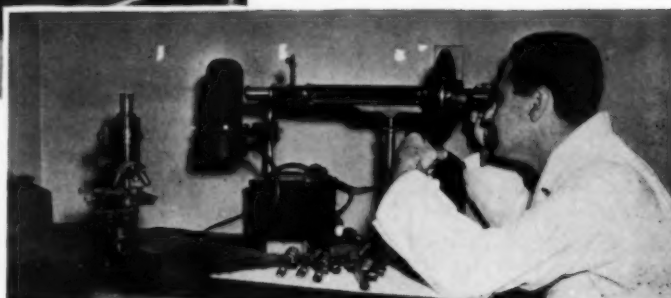
David C. Ball, 94, organizer and chairman of the board of directors of Oakite Products, Inc., New York, died recently at Far Horizon, Lake Placid, N. Y., after a six months illness. Prominent for many years in the cotton business in St. Louis, of which he was a native, he moved to New York in 1898. He organized Oakley Chemical Co., in 1909 to manufacture and service industrial cleaning materials. He changed the name of the company to Oakite Products, Inc., in 1926. At that time the firm was converted to an organization in which the employees owned 70 percent of the company stock. Mr. Ball was presented with the French Legion of Honor for his part in the development of phosphate extraction in French West Africa in the 1920s. He is survived by a son, David Spencer Ball of Brookville, L. I., N. Y., first vice-president of Oakite Products.

Officers for 1951 of the Chicago Chapter of the Society of Cosmetic Chemists are from left to right: George G. Kolar (Kolar Laboratories) vice-chairman; Dr. Kathrine Graham (Sears, Roebuck & Co.) secretary; William E. Lieb (Allen B. Wrisley Co.) treasurer; Eugene Rose (G. Barr & Co.) chairman.





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LET US SHOULDER THIS RESPONSIBILITY . . .

The responsibility for quality is one of the obligations we assume when we take your order for perfume oils or compounded aromatics. And what an important function this is today when the threat of short supplies beckons forth, in mounting array, raw materials of dubious quality. Invariably, an aggravated sellers' market brings the harassed buyer face to face with this hazard . . . a hazard he can avoid by depending upon products identified by the **FRITZSCHE** label. For all such products undergo a process of screening before their acceptance for stock that enables us to detect and reject any lot that does not fully comply with established **FRITZSCHE** standards. Today, more than ever, it's good insurance to **BUY FRITZSCHE** and to enjoy the protection and satisfaction that is inherent in every product so labeled.

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Discusses Toilet Soap Making

A REPORT on "The Technology of Toilet Soap," by Dr. Alexander Aronowsky, chief chemist of Reinitz Soap Corp., Long Island City, N. Y., highlighted the monthly dinner meeting of the American Society of Perfumers, held March 21, at the Advertising Club, New York. Fred Feilding, of Synflour Corp., New York, the Society's president, presided at the meeting, which was attended by about 50 members and guests.

Details on the "Ladies Night" meeting, scheduled for April 3, were announced by A. Dillinger, Van Amerigen-Haebler, Inc., New York, vice-president of the Society.

Dr. Aronowsky reviewed the soapmaking process, discussing the requirements of a satisfactory toilet soap, the raw materials used and methods of manufacture. He pointed out that tallow and fish oils, which are hardened, are used extensively in Germany; while home-made tallow and palm oil are employed commonly in England.

In discussing the technique of manufacturing hard milled toilet soaps, Dr. Aronowsky stated that one of the advantages of "natural cooled" soap frames is the extra time involved, which permits "after saponification." On the other hand, the speaker said, too rapid cooling of soap may cause "thermo-shock," which results in a hard, brittle soap. Still another result of "thermo-shock" is a change in the physical structure of the solid soap. The change brings about the formation of the omega state of soap, which is characterized by poor water solubility. The soap returns to its natural structure after a long period.

Another technique in toilet soap making, mentioned by Dr. Aronowsky, favors amalgamating or plodding the soap as soon as it comes from the dryer. In this way a good dispersion of all particles is provided and aggregates or sections of overdried soap are avoided.

Dr. Aronowsky cautioned against the addition of water to the

soap in the event that it is too dry. The added water may hydrolyze and introduce free fatty acids.

Dr. Aronowsky also stressed the importance of adequate plasticity, the lack of which results in soap cracking along the axis of plodding. Soap plasticity, he said, depends on moisture content, titer, and temperature of milling or plodding.

In connection with soap perfuming, Dr. Aronowsky suggested the addition of perfume to the superfatting agent before combining the two with the soap. Such a method provides a better dispersion in the soap, he stated. About one-half per cent perfume is required to mask the soap odor, so that two to 2½ per cent perfume is adequate for the commercial product.

Different soap bases react differently with the various essential oils, and thus no positive statement as to stability or discoloration effect can be made. This point is confirmed by the comparison of remarks by two authorities on soap perfumes who were in complete disagreement on the use of several perfume bases including anisaldehyde, benzaldehyde, bromostyrol, hydroxycitronellal, and terpinyl acetate. Dr. Aronowsky suggested testing the perfume base with samples of the soap base in question.

Besides the oven test method for perfume stability, Dr. Aronowsky described another test method. Soap from the plodder is cut with a stainless steel knife, exposing a fresh, uncontaminated surface. One drop of .1 per cent cuprous acetate is placed on the surface (serving as a catalyst), and the sample exposed to ultraviolet radiation. Dr. Aronowsky stressed the possible attack by ozone. To avoid this problem, the sample is maintained in an enclosure, which is continuously circulated with fresh air, thus preventing the formation of ozone.

Still another possible source of soap discoloration may be due to a reaction with the bleach contained in white paper used to wrap the soap. The condition is accentuated if the soap is

wrapped while still warm since "sweating" results.

Dr. Aronowsky completed his talk with a review of the Sharples', Procter and Gamble, and du Pont processes of continuous soap making.

New Deodorant Shampoo

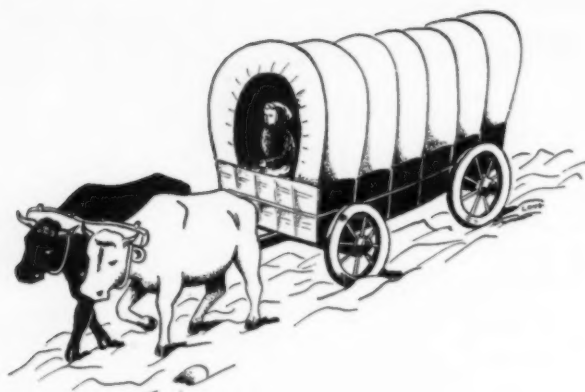
Tests sales of a new cream deodorant shampoo are being handled in Omaha and Lincoln, Neb., by Toni Co., Chicago, subsidiary of Gillette Safety Razor Co., New York. The new product, "Viv," is manufactured in pilot-plant quantities in St. Paul, Minn., and sold in four and eight ounce bottles.

Exhibit for Cannery

Two manufacturers of chemical specialties were represented in the exhibition of supplies and equipment for cannery during the recent 44th annual convention of the National Cannery Association, held at the Stevens Hotel, Chicago.

Oakite Products Co., New York, featured a detergent specially developed to handle cleaning problems in tomato processing plants. Also shown, among other items, was a soap type lubricant for the surface (not the gears) of conveyor lines carrying filled food cans. This, it is claimed, provides "slip" and at the same time keeps the conveyor clean and sanitary. Oakite's steam gun and hot spray units for applying cleaning solutions were also shown. K. L. Tucker, head of the firm's food sales division, was in charge.

Diversey Corp., Chicago, which manufactures some 40 different sanitation products, made a selective showing of detergents, cleaners, etc., particularly applicable in food processing plants. Also shown was the Diversey vaporizer for dispensing insecticides and "Diversol" bactericide-disinfectant for use on food plant equipment. Representatives at the show included E. H. Hilmes, canning department manager; R. T. Orr, manager, industrial insecticide department; Harold Verburg, central division manager; Charles Burke, assistant central division manager; and Arthur Beilke, north central district manager.



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VEGETABLE OILS

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Castor	Palm
Cocanut	Peanut
Corn	Sesame
Cottonseed	Soybean

ANIMAL FATS

Sperm Oil	Grease
Oleo Stearine	Tallow
Lard Oil	Lanolin
Neatsfoot Oil	

FATTY ACIDS

Red Oil	Tall Oil	Tallow
	Stearic Acid	
	Hydrogenated Fatty Acid	
	Cottonseed and Soybean	
	Fatty Acids	

ALKALIES

Caustic Soda, Solid, Liquid, and Flake
Soda Ash, Light and Dense
Carbonate of Potash, calcined and hydrated
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Tetra Pyro Phosphate
Quadrafos Granular and Beads—a stable polyphosphate for water conditioning and mild but effective detergency.

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SINCE 1838, we've been supplying the nation's "soapers" with basic raw materials.

SILICATE OF SODA—Liquid powdered and solid.

META SILICATE—"Metso"* Granular.

METSO* DETERGENTS—55, 66, 99.

MAYPONS—Unique surface active agents; prolific foam; high detergency and emulsifying powders; suitable for cosmetic and industrial use.

AIR DRYETTES • CHLOROPHYLL

* Reg. U. S. Pat. Off., Phila. Quartz Co.

Let us mix your dry private formulas

Established 1838

Welch, Holme & Clark Co., Inc.

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Warehouses in New York and Newark, N. J.

AASGP Washington Office

The opening of a Washington office in the LaSalle Building, Connecticut Avenue and L Street, Northwest, under the direction of Frank W. Luther, was announced recently by the Association of American Soap & Glycerine Producers, Inc. Miss Margaret Forbes is acting as secretary to Mr. Luther. The telephone number of the office is Metropolitan 5676-7.

Louis Levy Dies

Louis Spencer Levy, publisher of *The American Perfumer* for about thirty years, died March 4 at his home in Los Angeles, Calif. He was 74 years of age. He had undergone a serious operation last fall and was recovering when stricken with a sudden heart attack. Mr. Levy retired to Arizona and later to California about fifteen years ago, selling his publication to the then Robbins Publishing Co., later the Moore Publishing Co., New York. He was widely known in perfuming materials circles throughout the country. He had taken over about 1912 *The American Perfumer*, then an Ungerer & Co. house organ established by Will Ungerer in 1906, and developed it as a business publication.

Walter H. Tuttle Is Dead

Walter H. Tuttle, 66, who retired Oct. 11, 1950, after having served for eleven years as treasurer of Procter & Gamble Co., Cincinnati, died in that city Mar. 29. He had been with P&G for 46 years, having served for two decades as assistant treasurer. He was an officer of several subsidiaries and a trustee of the company's employee plans. He is survived by his widow, Mrs. Elsie Salway Tuttle and three sons.

Hooker Names Dauphine

The appointment of Dr. Thonet C. Dauphine as manager of sales development for Hooker Electrochemical Co., Niagara Falls, N. Y., was announced recently by R. W. Hooker, vice-president in charge of sales. Dr. Dauphine had been associated with Oronite Chemical Co., San Francisco, since 1946 as eastern manager of product development. Prior to that he was

a supervising engineer for the California Research Corp. which, like Oronite, is a wholly owned subsidiary



T. C. DAUPHINE

of Standard Oil Co. of California. From 1936 to 1939 he was an instructor in the chemical engineering department of Massachusetts Institute of Technology, from which he received S. B. and Sc.D degrees.

General Manager for Ayer

Nelson Millard, formerly of *Women's Wear Daily*, New York, and prior to that sales manager of department stores and drugs for Bourjois, Inc., New York, was appointed recently as general manager of Harriet Hubbard Ayer, Inc., division of Lever Brothers Co., New York.

Ralph Lewis, formerly president of Harriet Hubbard Ayer has just been appointed vice-president and general manager of Lucien Lelong, Inc., Chicago.

FTC Soap Hearings Resume

Further hearings on the Federal Trade Commission's charges against Lever Brothers Co., New York; Procter & Gamble Co., and others, Cincinnati; and Colgate-Palmolive-Peet Co., Jersey City, N. J., resumed March 19 at the F.T.C. Building in Washington. The soap manufacturers are charged with price discrimination in the sale of soap products in violation of the Clayton Act, as amended by the Robinson-Patman Act. The trial examiner is Earl J. Kolb and John L. York is the attorney in support of the complaint.

Make Detergents in Canada

Chemical Developments of Canada, Ltd., is now producing non-ionic type synthetic detergents and other organic chemicals at its newly opened plant at Langford, Ontario. At present operations are on a small scale, but they should be expanded during 1951, the company announced. Chemical Developments of Canada, Ltd., was formed a little over a year ago by Standard Chemical Co., Toronto, and General Aniline & Film Corp., New York.

C-P-P '50 Earnings Rise

A 1950 net income of \$15,737,000, or \$7.66 per share of common stock, up sharply from \$11,076,000, or \$5.33 per share in 1949, was reported late last month by Colgate-Palmolive-Peet Co., Jersey City, N. J. Both domestic and world wide sales were greater last year than in the previous year. In 1950 sales of the company and its foreign subsidiaries amounted to \$311,960,000, as against \$290,959,000 in 1949. Last year, domestic sales totaled \$211,855,000, up from \$203,966,000 in 1949.

In the annual report, E. H. Little, president of Colgate-Palmolive-Peet Co., pointed out that increased costs made it necessary to advance domestic selling prices of soaps and synthetic detergents in July, 1950, and on three subsequent occasions during the remainder of the year. Prior to Korea, fats and oils were plentiful and moderately priced, Mr. Little stated. However, since the outbreak of hostilities in Korea, fats and oils prices advanced considerably. The total of the increases on soaps and synthetic detergents was 20 to 25 percent, he stated. Although ceiling prices have been fixed on domestic fats and oils and soap and synthetic detergent prices, no limits have been placed on prices of coconut, palm and other important oils, which must be imported, the Colgate-Palmolive-Peet president stated.

Federal income taxes in 1950 amounted to \$11,256,619, as against \$5,248,964 in 1949. In 1950, the company had to pay \$1,021,598 in excess profits taxes.

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from the Givaudan research laboratories

essential oils that duplicate nature's best
(in everything but the cost!)

Givaudan's synthetic essential oils not only duplicate nature's best efforts, but surpass them in uniformity—at a cost far below the cost of natural oils. Why not profit by the independence and economy these Givaudan products offer you? We suggest:

* for vetivert—VERTONE

Recommended for use with the natural in a mixture in which vetivert itself would be required in proportions as low as 10%. VERTONE blends extremely well with vetivert oil. The combination has remarkable lasting power and is excellent for use in soaps and in the perfuming of creams and powders.

* for geranium—GERANIUM SYNTHETIC 1086

Recommended as a total replacement, particularly for geranium Bourbon whose deep floral odor is excellently reproduced.

*—GERANIUM SYNTHETIC GIVCO

A very inexpensive geranium material whose note is closely similar to the Algerian oil.

* for patchouli—PATCHOL

Lends itself harmoniously to blending with oil of patchouli. The combination is very stable in soap and will not induce discoloration.

*Write for samples and full information on these
and other timely Givaudan synthetic essential oils.*

Greater Distinction through

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Branches: Philadelphia • Boston • Cincinnati • Detroit • Chicago • Seattle • Los Angeles • Montreal • Toronto

New D. & R. Showroom

Daggett & Ramsdell, Inc., Newark, N. J., announced recently the opening of a New York showroom at 171 Madison Ave. Joseph Ryan is sales manager.

Sears Soap Sale

Sears, Roebuck & Company, Chicago, Ill. used page advertisements in metropolitan newspapers last month to announce a semi-annual sale of toilet and bath soaps. "Ann Barton" lanolated bar soap, offered at 12 bars for 88 cents, was previously \$1.25. A further 7-cent saving was offered on purchases of three boxes, or 59 cents on a case of 12 boxes. "Ann Barton" 98 cent, jumbo-size, cold cream, bath soap was offered in a 4-bar box for 77 cents, with additional savings for purchases of three boxes or a case of 12 boxes. "Ann Barton" large toilet size cold cream bars, 8 to a box, were offered at 77 cents, also with additional savings for purchases of three boxes or a case of 12 boxes.

R. D. Hebb of Swift Dies

Richard D. Hebb, public relations counselor for Swift & Co., Chicago, for over a quarter century, died Feb. 28 in a Salinas, Calif., hospital following a brief illness. He was 72 years old. Mr. Hebb became the first full time public relations man for Swift in 1916 and remained with the firm until 1943, when he retired and moved to Carmel, Calif.

New "Soilax" Premium

A hollow-ground, stainless steel, slicer carver with a molded plastic handle grip is the latest premium being offered to promote "Soilax" ammoniated cleanser for walls, woodwork and linoleum, it was announced recently by Economics Laboratory, Inc., St. Paul. The premium promotion is scheduled to run throughout the United States during the spring.

Dittrich to EOA Committee

Frank F. Dittrich, chief auditor and credit manager of Ungerer & Co., New York was recently appointed to the executive committee of the Es-

sential Oil Association. He is also chairman of the Import Committee.



FRANK F. DITTRICH

Mr. Dittrich has been associated with Ungerer & Co. in various capacities since 1942.

Ellis Joins Parkinson

Edgar R. Ellis joined Parkinson Perfumes, Inc., Katonah, N. Y., on March 15 as vice president and sales manager. In his new post, Mr. Ellis becomes associated with George R. Parkinson who has directed the affairs of the company for the past ten years. Previously, Mr. Ellis had been connected with the sales department of Firmenich & Co., New York and Geneva, since 1938. The Parkinson company which produces perfuming compounds and specialties was formerly located in New York City, but moved its plant and offices two years ago to Katonah, located about thirty miles from New York.

Lever Spring Promotion

A spring cleaning promotion featuring special display material and a new premium was announced recently by Lever Brothers Co., New York. The cooperative campaign of stores participating in it is being featured in the various forms of advertising being done by Lever. A plastic apron with pockets for cleaning materials, obtainable for 25 cents and two wrappers or boxtops from "Surf," "Rinso," "Silver Dust," "Lux," flakes or soap, "Lifebuoy" or "Swan," is the feature of the promotion.

New C-P-P Pension Plan

A new and expanded four million dollar pension plan affecting the company's 5,000 employees at the main plant and those at Jeffersonville, Ind., Kansas City, Kans., and Berkley, Calif., was announced recently by Colgate-Palmolive-Peet Co., Jersey City, N. J. The plan, announced by Aloysius B. Whalen, president of the independent union, goes into effect May 1. It increases eligibility of employees and is a unilateral agreement.

Martin to Antara

Donald M. Martin, formerly sales manager of the organic chemicals division, is now advertising manager of the Antara Products Division of General Dyestuff Corp., New York. Miss Carol Schreiber is now serving as assistant to Mr. Martin.

New Ayer Manager

Marie Fromow has been appointed manager of Harriet Hubbard Ayer of Canada to succeed Keith Porter, who has been named president of Harriet Hubbard Ayer, New York. Miss Fromow was formerly director of market research for Lever Bros., Ltd., Canada.

USDA Making Survey

The U. S. Department of Agriculture is conducting a brief survey of the fats and oils situation in several Western European Countries. Under provisions of the Research and Marketing Act, the observations are being made by Paul E. Quintus, head of the Fats and Oils Division, Office of Foreign Agricultural Relations, who is in Europe as a delegate to the third round of tariff negotiations under the General Agreement on Tariffs and Trade, which is being held at Torquay, England. The purpose of the study is to gain up-to-date information concerning trends in production and consumption of certain fats and oils.

The brief investigation is taking Mr. Quintus through Belgium, Western Germany, France, England and possibly the Netherlands. Fitting his trips into his Torquay schedule, Mr. Quintus will return to England after visiting Brussels, Frankfurt and Paris.



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"Hercules" CMC-CT also cuts your materials costs. By reducing the active detergent needed, it permits the generous addition of cheaper neutral and alkaline builders.

Hercules will gladly help you adapt its CMC-CT to your needs. Send for technical data and testing sample.

**MORE AND MORE CONSUMERS
USE DETERGENTS MADE WITH**

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CMC-CT

(UNPURIFIED CELLULOSE GUM)



CELLULOSE PRODUCTS DEPARTMENT
HERCULES POWDER COMPANY 961 Market Street, Wilmington, Delaware

Resume Work at Lever Plant

Work was resumed on the \$25,000,000 Los Angeles plant of Lever Brothers Co., last month, when AFL building tradesmen returned to their jobs after being idle for about a week. They refused to cross a picket line set up against Lever Brothers by AFL International Chemical Workers. The latter union represents Lever employees in all of the company's plants through the U. S. and Canada, with one exception. The trouble began in Los Angeles when it was charged that discrimination was practiced in the hiring of employes in the local units as they were being completed. An understanding between the company and the union on hiring practices and interrogation of work applicants is said to have resulted in the withdrawal of the pickets.

Par-Busters Golf Dates

Par-Busters, the golf auxiliary of the Chicago Perfumery, Soap & Extract Association, recently announced the following list of golf outings for the 1951 season: May 17, Knollwood; June 5, Norwood Hills, St. Louis; June 21, Rolling Green; July 17, Olympia Fields; Aug. 24, Elmhurst; Sept. 18, Medinah.

P&G to Run Atom Plant

Procter & Gamble Co., Cincinnati, has been selected to operate an atomic energy plant near Amarillo, Tex. The \$22 million plant was known during World War II as the Pantex Ordnance Plant. Reactivation of the

plant is now under way. It is under the joint supervision of the Atomic Energy Commission and the Army Ordnance Department, with P&G operating it on a cost-plus fixed-fee basis. According to the A.E.C. the plant will not produce radioactive materials. About 1000 persons are expected to be employed at the plant.

Heads Fat & Oil Assn.

Irving R. Boody, Jr. of Irving R. Boody & Co., New York, was elected recently as president of the Fats and Oils Merchants-Exporters Association.

ADCIOM Hears Tucker

Raymond Roche Tucker, head of the department of mechanical engineering, Washington University, St. Louis, discussed civilian defense at the March 14 dinner meeting of the Associated Drug and Chemicals Industries of Missouri, Inc., held at the Hotel Lennox.

Flavor Assn. to Meet

The 42nd annual meeting of the Flavoring Extract Manufacturers Assn. will be held at the Hotel Statler, New York, May 20-23, it was announced recently by John P. Curlett of McCormick & Co., Baltimore, president of the association. A golf tournament will be held this year in connection with the meeting. Fred J. Lueders of George Lueders & Co., New York, is chairman for the affair which is to be held at Baltusrol Country Club, Springfield, N. J., May 20.

Donald Blanchard Marries

Donald A. Blanchard, Schimmel & Co., New York and Joan Kathleen Donohue of Hewlett, N. Y. were married there recently. Mr. Blanchard served with the U. S. Army after his graduation from McGill University, Montreal and has been with Schimmel since 1946. He is now a junior sales executive. Mrs. Blanchard graduated from the University of Rochester and is employed by Harper's Publishing Co.

Detergents in Sewage

Detergents in sewage were discussed in symposia conducted during the second part of the American Chemical Society's 119th national meeting, held in Cleveland, Apr. 8-12. The following papers were presented in the symposium on detergents in water, sewage and sanitation problems, Apr. 8: "Synthetic Detergents and Associated Materials in Industrial and Domestic Service" by Leslie R. Bacon; "Detergents and Their Effects in Water Treatment" by William Stericker and A. B. Middleton; "Review of the Literature on Detergents in Sewage" by R. W. Simpson, who also presented the paper, "Effect of Detergents in Sewage Plant Operation"; "United Kingdom Experience of Synthetic Detergents in Sewage Processing" by M. Elton and A. L. Waddams; "Sewage Treatment Problems in Relation to Detergents" by William Rudolfs and Raymond M. Manganell, and "Effect of Detergents on Slime Growth in Sewers" by William Rudolfs and E. S. Crosby. At the same session, Anthony M. Schwartz spoke on "The Structural Characteristics and Behavior of Modern Surfactants."

The afternoon session of the symposium featured these papers: "Syndets in Relation to Biological Problems in Lakes" by Clair N. Sawyer; and "Corrections of Tastes and Odors Resulting from Detergent Tastes" by John W. Hasslet, J. G. Filicky and C. W. Aman.

One of the plant trips during the meeting was to Gerson-Stewart Co. to witness the manufacture of synthetic detergents and other cleaning compounds.

At a recent testimonial dinner, R. F. Huntley, vice-president and general manager of Cowles Chemical Co., Cleveland, presented a 35 year service pin to A. W. Scheidt, plant manager for Cowles at its Sewaren, N. J. plant, and a 25 year service pin to Mike Demko, plant foreman. The dinner was attended by C. C. Bassett, vice-president and director of sales, and the entire working force of the Sewaren plant. In the picture left to right: Mr. Bassett, Mr. Scheidt, Mr. Huntley and Mr. Demko.



Your invisible salesman

Fragrance



Sanitary products that are pleasant to use are apt to be used more freely. Whether you want to add a pleasing fragrance or merely mask a basic odor, we can supply a tested, effective compound.

For instance—

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- No-rinse liquid cleaners
- Quaternary ammonium disinfectants
- Scrubbing powders
- Heavy duty synthetic detergents
- Naphtha base cleaning fluids
- Insecticidal sprays
- Polishes and waxes

Use

- Primol I
- Deodor 300
- Sapol A S 4454
- Cipolene
- Primol III
- Deodor Tetra S 4260
- Wallflower S 4433
- Floor Polish Perfume A 987

Write to us about your odor masking problems. You may be surprised to learn how inexpensively they can be overcome.



& co., inc.

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George W. O'Keefe Dies

George W. O'Keefe, 56, vice-president in charge of sales for the dryer division of Proctor & Schwartz, Inc., Philadelphia, died at his home in Elkins Park, Pa., Feb. 11, after a long illness. A native of New York City, he was graduated from Stevens Institute of Technology as a mechanical engineer in 1917. He served in the first world war as a first lieutenant. Following this he joined Proctor & Schwartz as a sales representative. Except for a short period when he left the company to work for Filtration Engineers, Inc., Newark, N. J., he had been with the firm since. He was made sales manager of the dryer division in May, 1943, and was named vice-president shortly thereafter.

Peter Menke Dies

Peter Menke of George Lueders & Co., New York, died at his home, March 14. He had been with the company since 1904 and was traffic manager at the time of his death.

Riedweg Visits U. S.

Jacques Riedweg, of Givaudan & Cie., Paris, who has been connected with the French perfumery industry for 35 years, spent a greater part of March visiting the United States. Mr. Riedweg brought with him a number of new specialties which are being studied by Givaudan-Delawanna, Inc., New York, for adaption to the American market.

I. R. Boody Dies

Irving R. Boody, chairman of the board of the import and export firm of Irving R. Boody & Co., New York, died recently. His company imports vegetable oils and exports fats, oils, foodstuffs, steel and chemicals.

Mr. Boody was born in Brooklyn and his family moved to Staten Island in 1897. He was graduated from Phillips Exeter Academy in 1908, and began his business career with the firm of Balfour, Williamson & Co., Ltd., and rose to be manager of the bulk oil department. In 1923 he left to organize his own firm.

Mr. Boody was active in civic affairs and was head of the Emergency

Fats and Oils Committee during the Second World War.



Louis E. Bauer, above, formerly manager of production is now vice-president in charge of production for Niagara Alkali Co., New York, according to a recent announcement. Mr. Bauer, now a director, has been with the firm since 1917. He is a graduate of Brown University.

Cosmetic Chems. to Meet

The Society of Cosmetic Chemists has announced that its regular semi-annual meeting will be held on Friday, May 18, at the Biltmore Hotel in New York. Dr. Donald H. Powers, Warner-Hudnut, Inc., New York, is chairman of the program committee.

Enzyme Cleaning Powder

An enzyme with a great affinity for protein has been perfected as a dry cleaning powder in the laboratories of Pabst Brewing Co., Milwaukee, it was announced recently. The material operates through a form of digestive action and "eats and digests" certain types of stains on clothing. Such stains as caused by eggs, milk, ice cream, chocolate, coffee, blood, glue and other protein-base ingredients are removable with the new powder, according to the company. The new product can be used on cotton, wool, nylon, rayon and certain acetates. It cannot be used on some fabrics manufactured from artificial yarn having a protein base since the enzyme would proceed to digest the fabric itself.

"Exzyme," as the powder is known, has been tested in several dry cleaning plants. One tablespoonful is mixed with a gallon of water to form a use dilution. The new powder is now in commercial production.

Heads New Shulton Unit

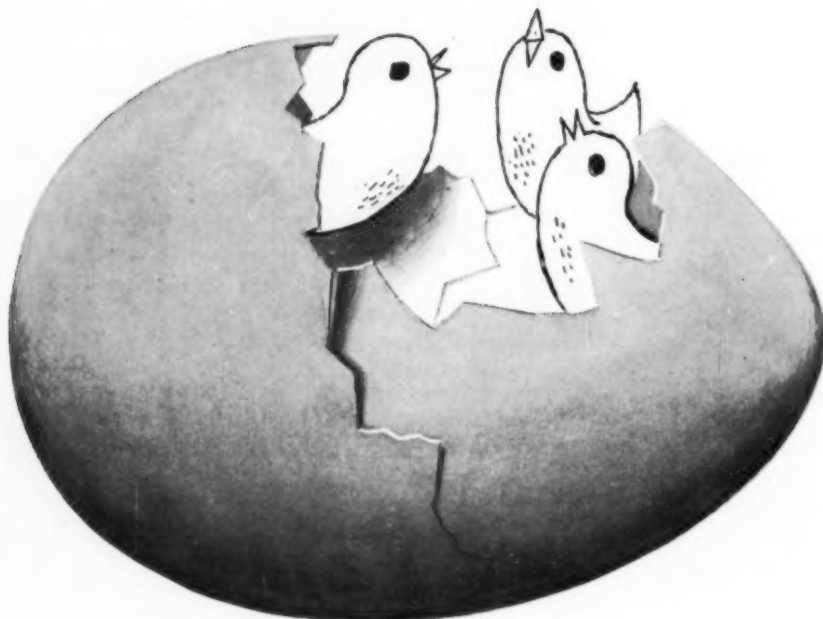
Raymond G. McCue, formerly of Albert Verley Co., Chicago, recently joined Shulton, Inc., New York, to handle sales of a new fine-chemicals division at the firm's plant in Clifton, N. J. The new division has been formed for the manufacture and distribution of "Vanitrope," a new raw material for the flavor industry, and other flavor and aromatic chemicals.

Wyandotte Expansion Plans

An expansion program that will increase materially the manufacturing facilities and industry-service operations of Wyandotte Chemicals Corp., Wyandotte, Mich., was announced recently by Robert B. Semple, president. The program, which will be accomplished in steps, will include broadening of research and development activities to be housed in a new research center, ground for which has already been broken. The research center will be a city block and one-half long and a half block wide. It will supplement a new research pilot plant to be built in Wyandotte. Sanitation, germicides, and the entire field of commercial cleaning served by the company's dishwashing compounds, laundry detergents and metal and industrial cleaners are among the subjects to be studied in the research center, of which Dr. Thomas H. Vaughn, research and development vice-president, will be in charge.

The new Wyandotte expansion program involves the three chemical manufacturing and compounding plants located in Wyandotte; the limestone quarries at Alpena, Mich.; the clay operations at Blue Mountain, Miss., and the compounding plant at Los Angeles. The program will increase the company's output of chlorine, soda ash and caustic soda.

The initial phases of the program, to be carried out within the next two to three years, provided equipment is available and no unforeseen difficulties in construction are encountered, will be followed by additional projects now under consideration in the research and development division and the manufacturing engineering department.



3 caustics in 1

This is the true story of a soap manufacturer who was buying 3 grades of caustic soda from as many suppliers. He thought he needed all 3 grades to satisfy the requirements of his various grades of soap and different processes. But it was a lot of trouble to receive, handle and store these 3 separate grades. So he brought his problem to Wyandotte.

We were able to meet all of his requirements with one grade of Wyandotte Caustic.

Are *you* buying "too many" grades of caustic? If you think you are, why not talk over your specifications with Wyandotte's Technical Service Department?

SODA ASH • CAUSTIC SODA • BICARBONATE OF SODA
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HYDROGEN • DRY ICE • SYNTHETIC DETERGENTS • GLYCOLS
CARBOSE (Sodium CMC) • ETHYLENE DICHLORIDE • PROPYLENE
DICHLORIDE • AROMATIC SULFONIC ACID DERIVATIVES
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SOAP and SANITARY CHEMICALS

Drew Names Soalco

The chemical specialties division of E. F. Drew & Co., New York, announced the appointment of Soalco Products Co., Jersey City, N. J., as distributors for "Drisyn," a concentrated dry cleaning detergent. The firm will distribute the product in Northern New Jersey and Metropolitan New York. Drew factory representatives are working with the Soalco sales organization in introducing "Drisyn" to the trade in these areas.

Miss Danco In N. Y. Concert

Suzanne Danco, Belgian soprano, and sister of Gerard J. Danco of the New York essential oil firm bearing his name, was to make her first American appearance in a recital at Town Hall, New York, April 16.

AOCS Meets May 1-3

The installation of officers and technical discussions of fat and oil technology are among the highlights of the annual spring meeting of the American Oil Chemists' Society, being held May 1-3, at the Roosevelt Hotel, New Orleans. J. A. Kline of the Southern Regional Research Laboratory, New Orleans, is chairman and T. H. Hopper, also of SRRL, is program chairman. Election of officers is being carried on by a mail ballot, with A. E. Bailey, research director for Humko Co., Memphis, unopposed for the office of president, to succeed J. R. Mays, Jr., of Barrow-Agee Laboratories, Memphis.

C-P-P Doubles K. C. Plant

Construction of a new, five-story building for the production of heavy duty synthetic detergents was begun late in February at the Colgate-Palmolive-Peet Co., Jersey City, N. J., plant in the Armourdale district of Kansas City, Kans. Estimated cost of the building was put at \$400,000 by J. E. Dunn Construction Co., general contractor, in filing an application to the city for a building permit. The cost of the building plus equipment is expected to exceed one million dollars.

The new unit is expected to more than double the present capacity

of the soap and synthetic detergent plant, to which a one million dollar detergent spray drying tower was added about four years ago. The new building will have a basement and five stories above the ground. It will cover a ground area of 123 x 63 feet.

Albert Kahn, Detroit architect, designed the plant, which is to be completed and in operation early next year.

Colgate-Palmolive-Peet Co. recently put into operation a multi-million dollar plant on an adjacent site for the production of toilet articles.

SAACI Celebrates 30th Yr.

The 30th anniversary of the Salesmen's Association of the American Chemical Industry will be marked in September of this year. Philip J. LoBue of the New York firm bearing his name has been appointed chairman of the anniversary committee by Paul W. Hiller of Innis, Speiden & Co., New York, president of the organization. All of the association's functions during the year are to be tied in with the 30th anniversary celebration.

Kemp to Original Bradford

C. R. Kemp, formerly in charge of the Newark, N. J. plant of J. R. Watkins Co., Winona, Minn., and co-author with E. G. Thomssen of *Modern Soap Making*, has just joined The Original Bradford Soap Works, West Warwick, R. I., where he is in charge of the laboratory.

Jan. Soap Fat Use Rises

Reported consumption of animal and vegetable fats and oils for soap rose in January, 1951, as compared with the previous month, according to figures just released by the Bureau of the Census of the U. S. Department of Commerce. In January, 184,587,000 pounds of fats and oils were reported consumed for soap, as compared with 175,826,000 pounds in December. Inedible tallow use was put at 64,031,000 pounds, refined inedible tallow at 28,661,000 and grease 43,343,000 pounds in January. Crude coconut oil consumption was 14,345,000 and refined coconut oil 10,736,000 pounds in the same month.

Donald Wilson Dies

Donald Wilson, 87, for more than 30 years a travelling salesman for Van Dyk & Co., Belleville, N. J., died of a heart attack at his home in East Orange, N. J., March 18. A native of Brooklyn, he is survived by his widow and a daughter. Before joining Van Dyk, he was the American agent for a Swiss aromatic chemical manufacturing concern.

Chiris Advances Martin

Marius J. Martin, who recently celebrated his 35th anniversary with the company, has been elected by the board of directors of Antoine Chiris Co., New York, as vice-president in charge of production.

1952 Soap Meeting Dates

The next annual meeting of the soap industry under the auspices of the Association of American Soap & Glycerine Producers will be held at the Waldorf-Astoria Hotel, New York, January 22 and 23, 1952, according to an announcement of tentative plans by Roy W. Peet, manager of the Association. The 1952 convention details were discussed at a meeting of the Association Convention Committee, headed by M. L. Westering of Swift & Co., held in New York on April 5. Preliminary arrangements for the 1953 meeting of AASGP include dates at the same hotel, January 28 and 29.

Brooks Changes Name

Brooks Chemicals, Inc., Cleveland, is the new name of the Brooks Boiler Treatment Co. The change in name has been made to describe more accurately the much broader field now covered by the firm.

Materials Handling Show

A. Spinanger of Procter & Gamble Co., Cincinnati, will participate in a panel discussion on "Unit Loading and Packaging Methods" at the conference being held during the National Materials Handling Exposition at the International Amphitheatre, Chicago, Apr. 30-May 4. Mr. Spinanger's topic is "Without Pallets and Skids." He will speak on Tuesday afternoon, May 1.

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TRADE MARKS

The following trade marks are published in compliance with section 13 (a) of the Trade Mark Act of 1946. Notice of opposition must be filed within 30 days of publication and a fee of \$25 must accompany each notice of opposition.

Devran—This for cleansing, scouring and degreasing agents for hides. Filed Nov. 4, 1949 by Monsanto Chemical Co., St. Louis. Claims use since Sept. 2, 1949.

Blue Angel—This for soaps. Filed Apr. 20, 1950 by Avon Products, Inc., New York. Claims use since Apr. 3, 1950.

Perklor—This for dry cleaning solvent. Filed Apr. 24, 1950 by Dow Chemical Co., Midland, Mich. Claims use since Jan. 16, 1950.

Senior—This for automobile polishes. Filed Dec. 23, 1947 by Baltimore Paint & Color Works, Baltimore. Claims use since 1929.

Trep's—This for silver polish. Filed Jan. 24, 1950 by M. R. Trep-tow, Plainfield, N. J. Claims use since July 7, 1948.

Burnishine—This for metal polish. Filed Feb. 21, 1950 by J. C. Paul & Co., Chicago. Claims use since Oct. 1, 1886.

Sexton—This for insecticides, disinfectants and deodorants. Filed May 12, 1940 by John Sexton & Co., Chicago. Claims use since March, 1944.

Tri "D"—This for insecticide. Filed June 14, 1949 by Stauffer Chemical Co., San Francisco. Claims use since May 14, 1948.

Uco—This for germicide and disinfectant. Filed July 21, 1949 by UCO Food Corp., Newark, N. J. Claims use since May 5, 1927.

Hygienize—This for quar-ter-nary ammonium compounds. Filed July 26, 1949 by Quaker Chemical Products Corp., Conshohocken, Pa. Claims use since July 20, 1949.

Aldesan—This for deodorants and disinfectants for household use. Filed Aug. 12, 1949 by Allen Chemicals Corp., Chicago. Claims use since June 20, 1949.

Compound 118—This for insecticides. Filed Jan. 18, 1950 by Julius Hyman & Co., Denver. Claims use since Apr. 27, 1949.

Clothes Savers—This for insecticides. Filed Mar. 4, 1950 by Levy Chemical Co., New York. Claims use since Nov. 8, 1927.

Nialk—This for paradichloro-benzene. Filed May 6, 1950 by Niagara Alkali Co., Niagara Falls,

New York. Claims use since Sept. 11, 1942.

Lindex—This for insecticide. Filed May 11, 1950 by Thompson-Hayward Chemical Co., Kansas City, Mo. Claims use since Feb. 9, 1950.

Pyrin—This for insecticide concentrate. Filed May 15, 1950 by John Powell & Co., New York. Claims use since June 9, 1938.

Burnex—This for brushless shaving cream. Filed Jan. 24, 1949 by Burnex Products Co., Newark, N. J. Claims use since Oct. 3, 1920.

Blair—This for shaving cream. Filed Dec. 1, 1949 by Blair of Virginia, Lynchburg. Claims use since Jan. 1, 1949.

"Ends"—This for dentrifice. Filed July 26, 1950 by Pearson Pharmacal Co., New York. Claims use since June 23, 1950.

Bowes Seal Fast—This for tire side-wall cleaning compound. Filed Aug. 23, 1947 by Bowes "Seal-Fast" Corp., Indianapolis, Ind. Claims use since Apr. 2, 1918.

Silhouette—This for hand and bath soap. Filed Apr. 24, 1948 by Armand Co., Des Moines, Ia. Claims use since Mar. 19, 1948.

Symphonic—This for hand and bath soap. Filed Apr. 24, 1948 by Armand Co., Des Moines, Ia. Claims use since Mar. 19, 1948.

Soot Jinx—This for material for disintegrating soot. Filed Jan. 25, 1949 by Kor Corp., Gary, Ind. Claims use since Nov. 26, 1948.

Glowyte—This for laundry soaps and alkaline compound detergents for laundering. Filed Mar. 5, 1949 by Gold Par Products Co., New York. Claims use since Jan. 7, 1949.

Dish-Glo—This for liquid detergents for washing dishes, glasses, etc. Filed Apr. 30, 1949 by St. Louis Janitor Supply Co., St. Louis, Mo. Claims use since June, 1942.

Sealit—This for cleaner for tile, marble, terrazzo and non-resilient surfaces. Filed May 17, 1949 by Franklin Research Co., Philadelphia, Pa. Claims use since May 14, 1934.

Balanced Vision—This for cleaning preparation for glass, metal, painted, enamel, tile, stone and wood surfaces for washing fabrics and for general household use. Filed May 31, 1949 by Slater and Lloyd, San Francisco. Claims use since Oct. 6, 1948.

SBS-15—This for skin cleaning composition. Filed Dec. 6, 1949 by Sugar Beet Products Co., Saginaw, Mich. Claims use since Dec. 1, 1940.

Carco—This for insecticide in liquid form. Filed Sept. 27, 1948 by Getzum Products, Sumner, Wash. Claims use since June 17, 1948.

Catalox—This for non-wash-

ing soaps of general utility. Filed Aug. 24, 1949 by Ferro Chemical Corp., Bedford, O. Claims use since Aug. 8, 1948.

Sergeant's—This for disinfectant. Filed Mar. 15, 1950 by Polk Miller Products Corp., Richmond, Va. Claims use since Jan. 4, 1950.

"Crag"—This for insect repellent. Filed Apr. 4, 1950 by Union Carbide and Carbon Corp., New York. Claims use since Apr. 29, 1949.

Alfco—This for surface active agents. Filed Apr. 8, 1950 by American-La France-Foamite Corp., Elmira, N. Y. Claims use since Nov. 1946.

Aurora—This for antiseptic and deodorant in powder form. Filed Oct. 5, 1948 by The Stillman Co., Aurora, Ill. Claims use since Sept. 20, 1948.

IPE—This for soap and grease crutchers. Filed Apr. 9, 1949 by Industrial Process Engineers, Newark, N. J. Claims use since Mar. 15, 1945.

Duolay—This for shaving cream. Filed Apr. 26, 1950 by Sperling Laboratories, Glenside, Pa. Claims use since Oct. 1, 1947.

Necessaire—This for kit containing toilet soap. Filed May 23, 1950 by Richard Hudnut, New York. Claims use since Apr. 28, 1950.

Florida Water Soap—This for soap. Filed Jan. 7, 1948 by Lanman & Kemp-Barclay & Co., New York. Claims use since 1923.

Eratol—This for antiseptic and anti-bacterial soap. Filed Mar. 17, 1949 by Pharma-Craft Corp., New York. Claims use since Jan. 20, 1949.

O Cedar—This for combination polish and wax for furniture, walls, floors, and automobiles. Filed July 13, 1948 by O-Cedar Corp'n, Chicago. Claims use since Nov. 1, 1947.

Moth-King—This for insecticides, namely, paradichlorobenzene and similar compounds in crystal, powder or liquid form. Filed Feb. 8, 1950 by Moth-King Corp., Detroit. Claims use since Aug. 25, 1948.

NC 311—This for insecticides, fungicides and chemical moth killer. Filed Apr. 12, 1950 by Nassau Chemicals, Inc., San Francisco. Claims use since Dec. 30, 1949.

Holiday—This for insecticides and larvicides. Filed Apr. 17, 1950 by Southern Entomological Co., West Palm Beach, Fla. Claims use since Nov. 30, 1949.

Sanor—This for dispenser containing a liquid deodorant. Filed June 11, 1949 by Rochester Germicide Co., Rochester, N. Y. Claims use since Sept. 7, 1938.

Terrazeal—This for liquid floor sealer. Filed Apr. 7, 1950 by West Disinfecting Co., Long Island City, N. Y. Claims use since April, 1932.

B&A—This for germicides. (Turn to Page 143)

For better compounds, use the tested best!

D-40 DETERGENT



Compounds containing D-40 are being used throughout industry for everything from metal cleaning to fruit and vegetable washing. Get full information from any of the Oronite offices listed below.

Detergents from Oronite have proved their performance and quality in household and industrial cleaning compounds of all kinds. Continued and growing use by leading processors, compounders and re-packagers proves the efficiency and dependability of our detergent materials.

When you switch to detergents made by Oronite, you're getting the tested best.

Here are three of many uses in which products containing D-40 detergent excel:



Household Cleansers

In scouring cleansers, compounders find D-40 makes their products better and faster cleaners.



Dairy Equipment Washing

An excellent wetting agent, as well as detergent, D-40 in dairy equipment cleaning compounds helps prevent the formation of milkstone.



Car Washing

Car washing products containing D-40 work fast, leave no film to dull the finish, rinse away quickly and easily.

ORONITE CHEMICAL COMPANY

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AQM Insecticide Openings

Bids on the following items were announced by the Department of the Army, Office of the Quartermaster General, Washington, D. C., in an opening that closed March 22: 637,000 gallons 20 per cent DDT airplane insecticide spray in 55 gallon non-returnable drums; 22,000 gallons of DDT insecticide emulsion concentrate; 520,000 pounds of 75 per cent water dispersible insecticide powder; 15,697,000, two-ounce cans of insecticide dusting powder; 6,101,000 pounds of insecticide dusting powder in five pound cans; 275,000 gallons of roach and ant control residual insecticide spray in five gallon containers, and 3,168 gallons of insecticide delousing spray in five gallon containers.

FSS Toilet Soap Awards

Baltimore Chemical Corp., Baltimore, received the award on an unspecified quantity of toilet soap in a recent opening for miscellaneous supplies by the Federal Supply Service, Washington, D. C. The bids on which the awards were based were \$11.25 per case for item 1 and \$17.40 per case on item 2, 500 cakes per case.

Liquid Soap Bids

Among the bids received on an unspecified quantity of liquid toilet soap in a recent opening for miscellaneous supplies by the Federal Supply Service, New York, were those of: Trio Chemical Works, Inc., Brooklyn, \$29 per drum; R. M. Hollingshead Corp., Camden, N. J., 49 cents per gallon; Richard Read, Inc., Washington, D. C., 13 cents per pound, 5,000 pounds only; William Messer Corp., New York, \$53.13 per drum, fob Chicago or \$40.48, fob Indianapolis; Harley Soap Co., Philadelphia, \$26.95 per drum, allowance of \$2 on drums in lots of 10 or more returned in good condition; Crystal Soap & Chemical Co., Philadelphia, \$25 per drum; Sanitary Soap Co., Paterson, N. J., 60 cents per gallon; Lanair Chemical Corp., Chicago, 63 cents per gallon;

Chicago Sanitary Products Co., Chicago, \$38.50 per drum.

Stahl Low P.O. Soap Bidder

In a recent opening for miscellaneous supplies by the Post Office Department, Washington, D. C., Stahl Soap Corp., Brooklyn, submitted the only bid of 18.33 cents per pound on 50,000 pounds of toilet soap.

Para Block Award

Paradize Products Corp., Fairview, N. J., received the award on an unspecified quantity of four-ounce urinal deodorant blocks in a recent opening for miscellaneous supplies by the Marine Corps, Washington, D. C. The Paradize bids, upon which the award was based, were: item a, 18.85 cents, b, 19.25 cents and c and d, 21.75 cents.

Wax Awards to Penetone

Penetone Co., Tenafly, N. J., received the award on two items of floor wax in a recent opening for miscellaneous supplies by the Federal Supply Service, Washington, D. C. The Penetone bid on one item of 4,500 gallons of floor wax in five-gallon drums was 73.2 cents; the other award was made on a bid of 67.2 cents on 11,000 gallons in 55-gallon drums.

POD Soap Award to Stahl

In a recent opening for 2,000 pounds of toilet soap by the Post Office Department, Washington, D. C., Stahl Soap Corp., Brooklyn, received the award on the basis of a low bid of 19.47 cents per pound.

Marine Corps Soap Awards

Awards on 180,000 pounds of chip soap in a recent opening for miscellaneous supplies by the Marine Corps, Washington, D. C., went to Colgate-Palmolive-Peet Co., Jersey City, N. J., and Spazier Soap & Chemical Co., Santa Monica, Calif. Colgate received the award on items 1a, b and c, with bids of 16.63 cents, 16.67 and 15.94, respectively. The Spazier awards

were based on bids of 15.8 cents (item 2a) and 15.75 cents (item 2b).

Scouring Powder Award

Day & Frick, Philadelphia, were the low bidders on 6,000 pounds of scouring powder in a recent opening for miscellaneous supplies by the Federal Supply Service, Washington, D. C., and received the award with a bid of 6.45 cents.

Low Hand Soap Bid

Utility Co., New York, submitted the low bid, 5.95 cents per pound, on an unspecified quantity of grit paste hand soap in a recent opening for miscellaneous supplies by the Federal Supply Service, Washington, D. C.

Misc. F.S.S. Bids

Apter Brothers & Co., Baltimore, submitted the low bids on two items of floor wax in a recent opening for miscellaneous supplies by the Federal Supply Service, Washington, D. C. The firm's bid on item 1 was 92 cents in five-gallon square tin cans; on item 2 the bid was 85 cents.

In another Federal Supply Service opening on furniture polish, Ches-White Co., Baltimore, submitted the low bid of 17 cents per quart bottle.

NYC Seeks Soap

A total of 8,000 pounds of chip laundry soap and 24,000 cakes of grease removing soap are among the items listed in the latest bulletin of New York City's Department of Commerce, which contains invitations by various government agencies to bid on needed supplies.

Seeks Detergent License

J. Schneebeli & Cie., 117 Arlbergstrasse, Bregenz, Province of Vorarlberg, Austria, is interested in negotiating a licensing arrangement with a United States manufacturer of synthetic detergents, according to a recent bulletin of the Bureau of Foreign and Domestic Commerce of the U. S. Department of Commerce's Office of International Trade. The firm acts as a manufacturer, importer, wholesaler, commission merchant and sales agent.

WHEN YOU HAVE DEPENDABILITY YOUR INVESTMENT HAS BEEN JUSTIFIED.

**For every
operation in
*Soap Making***

For continuous mixing, milling, plodding, cutting,
pressing and wrapping every kind of soap.

- (A) TILTING AMALGAMATOR
Other types available.
- (B) TYPE E STEEL ROLL MILL
With 18" x 40" water cooled rolls.
- (C) GIANT PLODDER—Capacity 4000 to 6000 pounds per hour
- (D) VAN BUREN AUTOMATIC CUTTER
Continuous cutting without scrap.
Other types available.
- (E) SAFETY AIR PRESS
Easier to operate. Produces consistently uniform cakes.
- (F) VAN BUREN AUTOMATIC SOAP WRAPPERS. Will wrap 200 to 300 cakes per minute.

HOUCHIN SOAP MAKING MACHINERY IS BUILT TO QUALITY STANDARDS NOT TO PRICE COMPETITION

Houchin machinery is designed and built for hard continuous service.

Liberal safety factors allow for overloads and other abuses.

At home and abroad our customers depend upon Houchin soap making equipment to operate continuously for twenty-four hours per day, and it does not disappoint them.

It would be difficult indeed to find a responsible soap manufacturer in any country who does not use some or all of our machines. The majority continue to specify HOUCHIN exclusively. That is why we have continued to lead in our field for over three-quarters of a century.

Soap production superintendents want uninterrupted performance, not breakdown delays and production losses coupled with censure from top management.

HOUCHIN MACHINERY CO., INC.

Manufacturers of Soap Making Equipment for over Three-Quarters of a Century.

HAWTHORNE

NEW JERSEY

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Lubrication in Soap Plants

GREASES for lubrication in the soap industry must be carefully selected to prevent any chance of contamination or discoloration of the soap. The most important requirement of the grease specified for any intricate mechanism is stability, assuring a resistance to separation and oxidation. Leakage and soap deposits would be an indication that separation has occurred. In some phases of soapmaking, the possibility of moisture-contamination of lubricants necessitates a product which can emulsify with water to some extent, thus yielding a lubricating film which will be resistant to the washing action of water.

Emulsification of lubricating oils is favored by combining mineral oils with a small amount of animal or vegetable oils. One of the difficulties of emulsions is the possibility of a chemically unstable product, in which case it would be corrosive due to increased acidity. There is also the possibility that the emulsion may become gummy due to oxidation. However, this can be avoided by use of refined lubricants in which the unstable hydrocarbon components have been removed. In manufacturing greases, soaps are prepared which will resist the dissociating effect of water, or which will emulsify according to intended service. The basic materials, temperatures involved in mixing, rate of mixing, and whether the finished grease is poured hot or cold, are controlling factors in the manufacture of a high temperature grease, water-resistant product, or one with a fibrous nature.

Machinery required for the manufacture of soap falls into two

broad classifications; that involved in actual soapmaking, and that used in processing and packaging of the product for the market. In kettle boiling, the only machines requiring lubrication are the pumps used for pumping the raw materials to the kettles, and later pumping the hot soap to the processing department. Mechanical force feed lubricators with leads to the bearings are used satisfactorily in this application. However, in the processing department, where soap may have to be softened by heating to meet a state which is readily transferred, the bearings of the gear pumps may become so hot that the lubricant requires special attention. Mixer bearings meet the same problem.

Plants including a hydrogenation process usually prepare their own hydrogen in a hydrogen compressor. Hydrogen itself is not an explosive gas, however mixtures with oxygen or air are violently explosive, and the process of hydrogen compression requires an absolutely leakproof operation. The moderate pressure requirements in hydrogen compression do not impose a severe duty upon the compressor oil, so that the oil is fed to the cylinders by mechanical force-feed lubricators.

In the manufacture of bar soaps, the hot liquid soap is poured over cooling rolls, the solid soap being scraped from the cylinders. The refrigeration units use refrigerants such as ammonia or one of the "Freons," which effect cooling by evaporation and expansion of the refrigerant. The refrigeration unit must be tightly sealed to prevent leakage. Lubrication of the refrigeration machinery is unique in that the action and effects

of the compressor oil upon parts not requiring lubrication must be considered along with the lubricating ability.

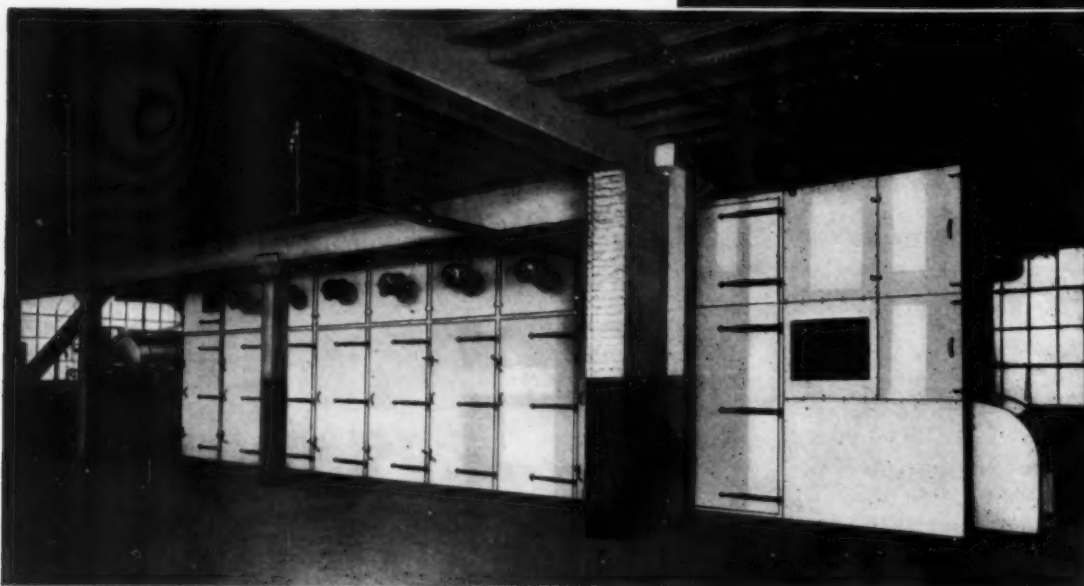
The oil used in lubricating refrigerating machinery must remain fluid at the lowest temperature to which it may be subjected during operation. If oil congeals in any part of the cooling system, it may form a coating on the expansion coils, affecting heat transfer, and reducing the refrigerating efficiency. Oil in the condenser will affect the pressure head. Temperature variations will occur in both the expansion and refrigerating cycles, that is even beyond the expansion valve.

A mineral, low pour oil having a viscosity about 150 seconds Saybolt at 100° F. is required in operations where the temperature in the refrigerating coil is below 5° F. Units in which the refrigerating temperature is higher may utilize oils with viscosities in the neighborhood of 200 to 500 seconds Saybolt. The lower the viscosity, the lower the pour test will be for oils of the same degree of refinement. A highly refined distilled mineral oil should be used in the lubrication of refrigeration machinery. Such an oil has a low rate of vaporization and does an effective lubricating job.

Either a splash or pressure application of lubrication may be used with vertical refrigeration units. Pressure lubrication can be used with either the vertical or horizontal machines. Oils of higher viscosity can be used more readily with pressure lubrication. Force feed circulation is used on centrifugal machines.

Lubricants for use in soap packaging machinery should be highly refined products. Cleanliness is stressed

THE *NEW* SOAP CHIP DRYER *by* SARGENT



Accurate FEED CONTROL — *Perfect* CHIP THICKNESS CONTROL



FOR INCREASED PRODUCTION

SARGENT'S New Soap Chip Dryer has flexible feed control and accurate chip thickness control—with three variable speed drives, for the rolls, for the feed apron, for the dryer conveyor. It has many other new features all designed to speed production at low operating cost.

The installation illustrated is at Standard Soap Co., Camden, N. J. Production is 2000 lbs. tallow base laundry soap chips per hour, with intake moisture of 34% and leaving moisture of 8%. Harder drying soap averages 1600 lbs. per hour. Chip thickness of 10/1000 to 12/1000 is consistent and even across full width of chilling roll and feed apron conveyor.

Please write for full particulars.

C. G. SARGENT'S SONS CORPORATION
Graniteville, Massachusetts, U.S.A.



in packaging operations, and the machinery is designed for the protection of materials being handled. Lubricants used in this machinery will be protected against possible contamination.

In specification of general lubrication for a plant, the engineer should take into consideration the condition of the installation. Whereas a highly refined oil or very high grade of grease would be ideal for a specific use, older installations might favor a cheaper product. As a result, a choice of lubricants of varying degree of refinement should be submitted for selection. In the case of oils, products of approximately the same viscosity, temperature range, operating pressure and adaptability to the same speeds should be considered.

Actual operating pressure should

be checked in specifying lubrication, since the pressures developed will be transmitted through practically all the moving elements of the machine. Where gears, chains or other motions are encountered, speed must be studied from the viewpoint of the extent to which centrifugal force will be developed and the lubricant thrown from the moving parts. In the case of bearings either grease or oil may be used in many cases, depending on the type of lubricating equipment, speed and bearing pressures. The amount of lubricant used with bearings should be controlled. If the average ball or roller bearing is filled with lubricant, it may lead to channeling of the product and also increase power consumption. The Texas Co., *Lubrication*, 37, No. 2, 13-20 (1951).

30 minute rinse; run II, 50 minute soap run, 30 minute rinse. "Pass Up" refers to the percentage of garments requiring no spotting.

Mr. Fulton pointed out that an increase in soil removal gives better loads so long as redeposition of soil is prevented. Another factor to be controlled in dry cleaning is the moisture content of the garments, since it has considerable effect on redeposition.

As to synthetic detergents, Mr. Fulton remarked that they are often not used properly, and that the amounts recommended for use by the manufacturer are often too small. He stated also that if a dry cleaner is to use a detergent intelligently, he should know whether whiteness retention is provided. Products should also be identified as to whether they are soaps or synthetic detergents, since soaps hydrolyze as additional loads are cleaned. Soaps intended for dry cleaning should have specifications of flash point and moisture content, the speaker concluded.

J. W. Hensley, Wyandotte Chemicals Corp., Wyandotte, Mich., presented the paper, "Use of Radioactive Tracers in the Evaluation of Metal Cleaners" by himself and H. R. Suter, also of Wyandotte. Stearic acid films were applied to prepared steel plates, and cleaned with various solutions. It was found that the removal of stearic acid is not a function of pH. At short cleaning periods, i.e., up to five minutes, metasilicate was found to leave less residue than soda ash. At higher cleaning times, soda ash left less residue. At cleaning periods of two minutes, at 90° C., the effect of concentration (.1 to one per cent) was negligible. At concentrations above one per cent, the residual soil counts per minute increased rapidly. This action may be due partly to a salting out effect on soaps formed.

Other technical papers presented at the meeting were: "A Laboratory Performance Test for Deter-

A. S. T. M. Committee D-12 Meets

IN ADDITION to reviews of the regular subcommittee work, and presentation of various technical papers, the annual meeting of Committee D-12 (soaps and other detergents) of the American Society of Testing Materials, also heard reports on the activities, with respect to detergents, of four other technical associations. The meeting was held March 19 and 20 at the Park Sheraton Hotel, New York.

During the course of the general session, at which J. C. Harris, Monsanto Chemical Co., Dayton, O., presided, the membership voted to elect F. W. Smithers honorary chairman of the committee. H. B. Trost, Hercules Powder Co., Wilmington, Del., was appointed to represent D-12 at the A.S.T.M. E-12 committee on Appearance. B. A. Schroeder, U. S. Testing Co., Hoboken, N. J., was appointed to represent D-12 at the meeting of A.S.T.M. Committee on Chemical Cellulose, which is being organized. It was announced that Committee D-12 will be concerned only with a physical test method for sodium carboxy methyl cellulose (studied by subcommittee T-5), leaving development of chemical specifications to the new committee. Antoinette Falcone, Assoc. Mer-

chandising Corp., New York, was appointed chairman of subcommittee G-4, Membership, succeeding J. N. Borglin, Hercules Powder Co., Wilmington, Del.

In his report on the "Functions of Soaps and Detergents in Dry Cleaning," G. P. Fulton, National Institute of Cleaning and Dyeing, Silver Spring, Md., pointed out that three of the main functions of soap were: (1) to facilitate spot removal, (2) to produce brighter, cleaner garments, and (3) to reduce the number of garments requiring wet cleaning. In a series of tests, soiled swatches and cloths impregnated with salt were treated simultaneously with a group of garments undergoing dry cleaning. Analysis of soil removal and salt removal of the swatches was compared with a plant classification of the cleaning effectiveness of the garments. Results are shown in table below.

Conditions of test run I in the table below are a 20 minute soap run,

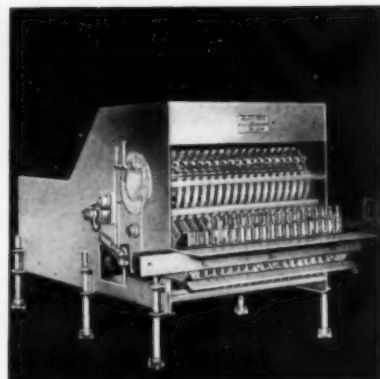
Test Run	Soil Removal	Salt Removal	Plant Statistics			
			Good	Poor	Wet Cleaning	Pass Up
I	37%	29%	40%	20%	19%	32%
II	46%	36%	0	29%	26%	20%



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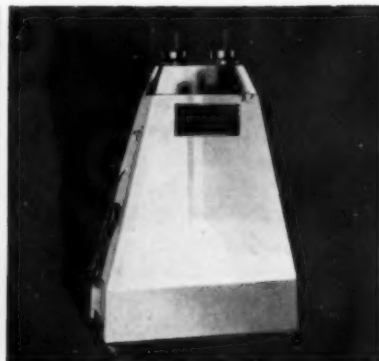
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gents Used in Continuous Scouring of Raw Wool" by E. A. Leonard, Alexander Smith and Sons Carpet Co., Yonkers, N. Y.; "A Method for Measuring the Adsorption of Anion Active Agents on Materials Commonly Washed" by W. A. Fessler, The Solvay Process Division, Allied Chemical and Dye Corp., New York; "A Study of the Wetting of Textile Materials" by Irving Gruntfest, Rohm and Haas Co., Philadelphia; "Practical Soiled Test Piece Evaluation" by R. B. Mitchell, American Institute of Laundering, Joliet, Ill.; and "Germicidal Agents for Soap" by Dr. Arthur R. Cade, Sindar Corp., New York. A film on "The Mechanical Effect Produced in Launder-O-Meter Jars" was presented by O. C. Bacon, E. I. du Pont de Nemours and Co., Wilmington, Del.

Activities of the National Security Industrial Association, were summarized by Dr. T. H. Vaughn, vice president and director of research for Wyandotte Chemicals Corp., Wyandotte, Mich. Dr. Vaughn pointed out that the N.S.I.A. was implemented through the activity of a number of industrial advisory committees on programs such as detergents, aeronautics, foods, material handling, medicines, plastics, etc. He stated that the detergent advisory committee was subdivided into seven task committees, each studying one of seven types of detergent problems. One committee is concerned with an official compilation of instructions on cleaning practices for Navy use, which includes proper identification of the recommended materials. Another committee deals with solvents for cleaning electrical equipment. One of the projects of this committee is the development of improved non-flammable non-toxic cleaning solvents for the Bureau of Ships. A third committee is concerned with the development of a suitable standard soiled cloth for use in laboratory evaluation of laundry detergents. The formulation of an all-purpose bar soap is the project of still another task committee. Requirements of this product are better foaming, and better appearance of a soap which can be used in all types of water. To date, formulations have been based on tallow fatty acids

for the soap portion, and an alkyl aryl sulfonate for the synthetic material to eliminate strategic materials such as coconut oil. The study of a fifth task group is directed toward special cleansers for plastic and glass. This group is attempting to develop an efficient cleaner that leaves a residual film, adequately resistant to water and subsequent icing and fogging. The sixth committee is working on the development of efficient degreasing compounds for both ferrous and non-ferrous metals, which are non-corrosive, compatible with hard water and which will deposit a protective film, or otherwise condition the surfaces, so that in the final rinsing operation, rusting or corrosion is inhibited. The last project is the development of a reliable method for a laboratory evaluation of metal degreasing compounds.

Activities of the "Soap, Detergent and Sanitary Chemical Products Division" of the Chemical Specialties Manufacturers Association were discussed by Perry Bartlett, West Disinfecting Co., Long Island City, N. Y. Dr. Bartlett mentioned reports presented at CSMA meetings as typical of the work done by this group.

Dr. Stiegler of the American Association of Textile Chemists and Colorists discussed the action of a detergent in a mill, and described a unit known as the detergency comparator. He described also a metal set of tubes for use in the Launder-o-meter for determination of color fastness.

Reports of the D-12 subcommittee were presented by the various chairmen. Eugene W. Blank, Colgate-Palmolive-Peet Co., Jersey City, N. J., reported that subcommittee T-1, Soap Analysis, is continuing its work on the development of a method for the determination of water insoluble material in soaps. Currently, two methods are under consideration: (1) a method of direct filtration, and (2) a method utilizing a centrifuge. Committee T-1 reported also that D-460-46, the Standard Method of Sampling and Chemical Analysis of Soaps and Soap Products, Section 21 b, on Chlorides is applicable only to sodium chloride, while Specification D-799-45 for Liquid Toilet Soap specifies a maxi-

mum chlorides content of 0.3 per cent potassium chloride. Members of D-12 approved rewording the last sentence of D-460-46, Section 21 b, to read "One-milliliter of the .1 N AgNO₃ solution is equivalent to .00585 grams of NaCl or .00746 grams of KCl.

Committee D-12 approved three test methods suggested by T-5, Physical Testing, as proposed tentative standards. J. A. Woodhead, Colgate-Palmolive-Peet Co., Jersey City, N. J., chairman of T-5, presented the following as tentative standards: (1) A Method of Test for Surface and Interfacial Tensions of Solutions of Surface Active Agents; (2) Method for Determination of pH of Aqueous Solutions of Soaps and Detergents; and (3) Method of Test for Foaming Properties of Surface Active Agents. The committee is continuing its work on "wetting-out" studies.

J. C. Harris, chairman of subcommittee T-6, Metal Cleaning, presented three proposed methods: (1) Immersion-Corrosion Test for Soak Test Metal Cleaners, (2) Rinsing, (3) Buffering Action.

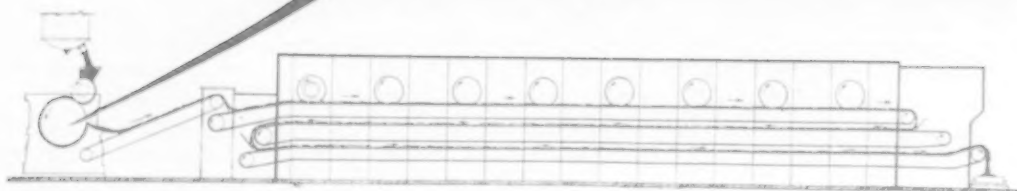
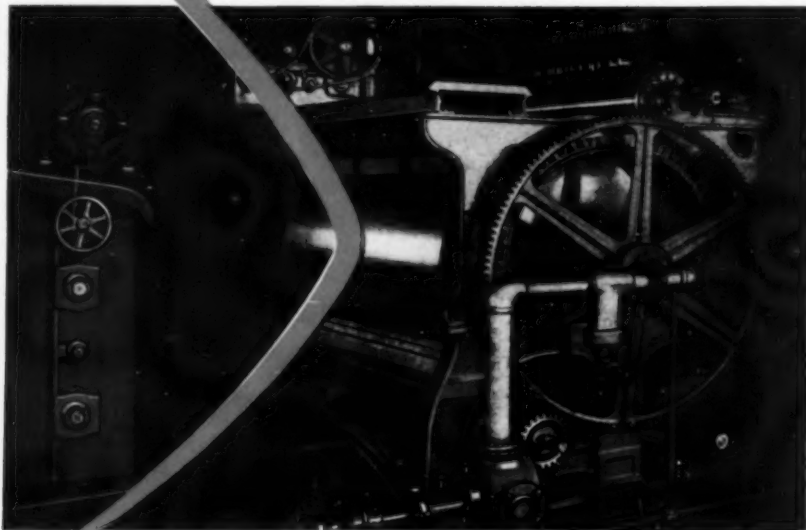
W. G. Morse, National Association of Purchasing Agents, New York, chairman of G-2, subcommittee on Definitions and Nomenclature, presented definitions of the following words as tentative: lather, foam, suds, rinse, emulsion, emulsion cleaner, soil, and diphasic metal cleaner.

Committee D-12 approved the proposal of S-1, Soaps, presented by Frederick Krassner, Naval Clothing Dept., New York Navy Yard, Brooklyn, N. Y., that the amount of sodium silicate used as preservative in soap be increased from four to six per cent. D-12 membership approved also the proposal that the insoluble matter in alcohol specification of .4 per cent in Specification D-799-45, be increased to .5 per cent.

M. F. Graham, Colgate-Palmolive-Peet Co., Jersey City, N. J., chairman of S-4, Specifications for Alkaline Detergents, reported the recommendations of the committee that D-928-47T, Specification for Sodium Bicarbonate be retained as tentative. Specifications for caustic potash will be considered by S-4 in the coming year.



TEMPERATURE SHOULDN'T VARY on a chilling roll, either!



REQUIREMENT: To maintain uniformity in the layer of soap on the chilling roll, the temperature must be uniform at all points on the surface of both the feed and chilling rolls. This is an important requirement—for any lack of uniformity at this point cannot be remedied in subsequent processing.

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Temperature control is maintained not only in the chilling operation—but also throughout the drying operation. Temperature in each dryer compartment is automatically controlled by an air operated, recording type temperature control.

Much Proctor drying equipment and textile machinery is covered in full or in part by patents or patents pending.

Accurate control of temperatures during chilling and drying is one of the ways in which the Proctor automatic flake soap system is daily meeting the rigid requirements of modern soap makers. It combines the precision engineered chilling machine, which forms uniform ribbons—with a drying system designed for accurately controlled drying.

That is why the Proctor automatic flake soap system has been so tremendously successful and the choice of the nation's leading soap manufacturers.

As you consider your own plant processing—you may find it interesting to see how this Proctor automatic "precision engineered" system may be employed profitably. Write today for the latest information.

COST CONSCIOUS?

Let Proctor engineers show you in black and white how the overall efficiency and completely automatic operation of this system reduces production costs.



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SOAP and SANITARY CHEMICALS

By E. G. THOMSEN, Ph.D.

INDICATIONS are that during the present emergency and possibly for some time to come, plant production machinery and equipment will be operated at capacity. Not only does this apply to defense work, but to regular production, as well. Plant and equipment depreciation will be more rapid as a result. Plants which do not have a constructive and adequate maintenance program will find it the more difficult, in these times of stress, to keep up production with sub-standard equipment. It is necessary for those who have not already done so, to use every possible means to make the facilities at hand last longer than during normal periods.

It is not possible for anyone remote from a plant to advise specifically on the details of such a program. Any such recommendations should be based upon past personal experiences or upon first hand observations of similar problems in other plants.

Maintenance is easier, generally, in large plants than in smaller ones. Large plants can afford to maintain regularly a crew of mechanics, equipped with the necessary tools for repairing and maintaining all types of equipment. The smaller plants depend largely upon mechanical help called in from the outside. As such help is not always readily available at present, long and costly delays often occur. Outside mechanics may not be as well versed with factory details and, hence, may not do as quick or thorough a job as a permanent, factory employed mechanical crew. It is advisable when calling in an outside repair man always to request the same individual. Because he is familiar with the plant, both time and labor costs are conserved.

Frequent and regular inspection has proved most constructive in keeping machinery in good running order.

Many plants neglect this because they consider it more costly than doing repair work during an occasional shutdown. Under present conditions such an attitude is foolhardy.

Employees operating machinery



DR. THOMSEN

and equipment should be taught and encouraged to maintain their facilities at the highest possible level. In some plants placards are put on machines at regular intervals, stating the number of hours the equipment has been operated without repair. If several similar machines are operated, the element of competition is introduced with bonuses paid at regular intervals. A well-conceived program developed along these lines can be very valuable in stepping up plant output, as well as conserving equipment and tools. Workmen realize that their own and others' steady employment depends upon constant production, hence do not look upon such methods as prods to increase their individual output.

Closely allied to regular inspection is frequent lubrication. More moving parts of any type of machinery are ruined by lack of correct oiling than from any other cause. "Too little and too late" applies as forcibly to lubrication as it does to a military operation. Lubrication is carried out

best by the person or persons actually operating the equipment. They are closest to the scene. Men should be trained to shut down any piece of equipment at the first sign of a squeak until its cause is ascertained. The squeak is as much of a warning signal in machinery as is the cry of a human being in distress. A bit of oil or grease at the right moment prevents many a heartache later, and yet we have all seen many cases in which machinery has been kept in operation for days in a squeaky condition.

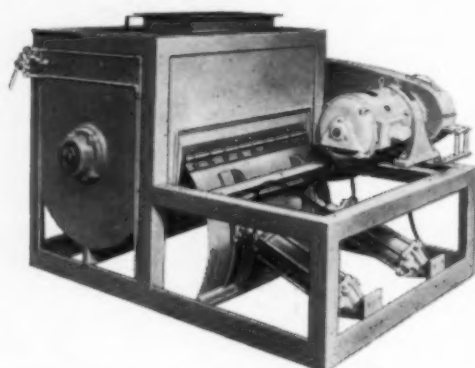
Almost as important as regular oiling of machinery is the choice of the lubricant to be used. Many equipment manufacturers recommend specific types of oil or grease for their machines. These recommendations, based upon experience, should be known and followed. If not, then a trained lubricating engineer should be consulted. Many companies gladly furnish this service gratis.

Next to lack of, or incorrect lubrication, corrosion is the most frequent cause for deterioration of manufacturing facilities. It should be watched very carefully and corrected at the earliest possible moment.

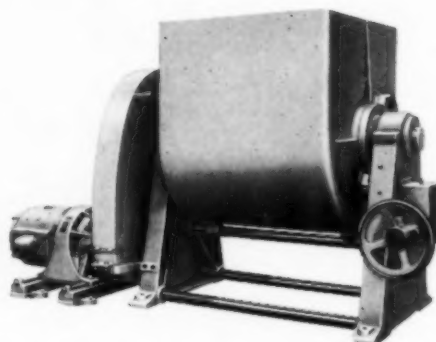
The use of paint, rust resisting coatings, corrosion proof metals and similar means aid in preventing shutdowns resulting from corrosion.

In spite of these and other precautions to keep all plant facilities in working order, accidental breakdowns may occur at any time. Far-seeing production superintendents anticipate such possibilities. Recently in visiting one of the most orderly plants that it has been my pleasure to see, I noticed on the walls a number of cabinets. Upon inquiring as to the purpose of these, one was opened for me. On the inside of the door was the number of a particular machine and the number of each critical moving part. The shelves of the cabinet were stocked with machine parts that are most prone to wear. This system, though costly, has paid for itself, because never since its adoption has any machine been shut down for over 24 hours.

While most machinery manufacturers maintain small order departments for replacement parts, often



• Lehmann 400 lb. Bottom Dump Amalgamator Model 40G-B. Furnished in plain or stainless steel.



• Lehmann 260-400 lb. Tilting Type Amalgamators. Furnished in plain or stainless steel.

THIS IS THE TIME TO STRENGTHEN WEAK SPOTS IN YOUR PRODUCTION

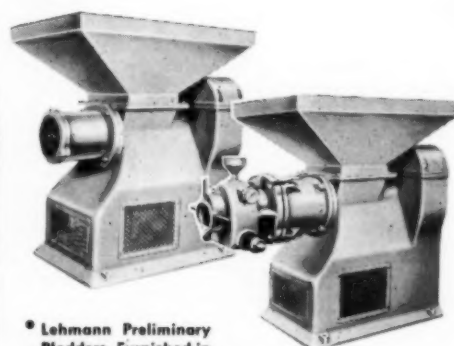
DURING this grave international crisis, every manufacturer should make all possible effort to strengthen the weak spots that exist in his production facilities. This may involve the replacement, reconditioning or modernization of important units of manufacturing equipment.

Improvement in mechanical efficiency usually saves manpower. And manpower is the crux of the Nation's defense problem. Armed forces and defense plants will take millions of men from civilian industry. Those remaining must be employed with utmost economy and common sense.

Look over your soap finishing machines now, with a critical eye. Are there any wasteful, high-cost units in your plant that should be replaced or reconditioned? If so, get in touch with us.

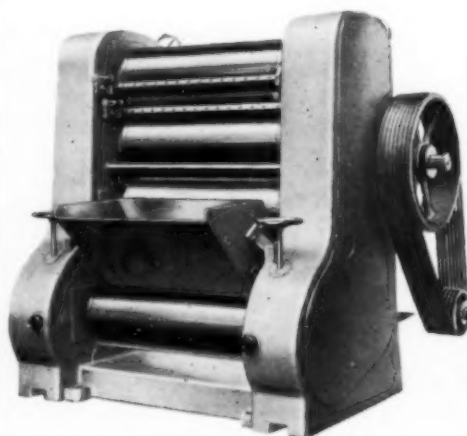
An industry operating at top efficiency is Democracy's most powerful weapon!

*Send for descriptive bulletin
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SOAP and SANITARY CHEMICALS

they are remote from the scene of the breakdown or do not carry all parts due to changes in design and for other reasons. Delays of a month are not infrequent. Whenever possible it pays to stock extra parts.

Production, we are told, is one of the most important factors in winning the fight with inflation and our enemies on the field of battle during this emergency. Worn out, inefficient facilities are of little help on the production front.

Sifting Machines

GREAT WESTERN MANUFACTURING CO. of Leavenworth, Kans., builds a line of gyratory sifting and screening machines. These are used in the chemical processing industries for screening out coarse materials, or for sifting finer products. Great Western equipment is designed for portability, ruggedness and simplicity. In order to prevent any damage to the motor drives, the motor and all moving parts are mounted above the sieve. Large capacities at very low operating and maintenance costs are said to result from the use of this equipment.

Tank Content Measure

THE "Tank-O-Meter" built by Uehling Instrument Co., Paterson, N. J., is used to measure accurately the liquid content of any tank. A desirable feature of this instrument is that the measuring scale may be located away from the tank, thus affording labor economies in certain types of installations. Bulletin No. 945 is available for further information.

Novel Belt Drive

BELTS of the V and flat types, chain drives and gears all suffer from certain disadvantages. To overcome these the L. H. Gilmar division of U. S. Rubber Co., Philadelphia, has introduced a new power transmitting timing belt. Regularly spaced projections or teeth are found on the surface of the pulley side of the belt, the other side of which is flat. The teeth fit into corresponding ones in the driving and driven pulley. These pulleys are made by die casting powdered metals. The belt is made from Neoprene rub-

ber, reinforced with steel cables for heavier drives.

As this belt fits tightly around the pulleys, it turns as soon as the motor is started without the usual slippage. This is very important in certain operations. Belts are available to fit pulleys as small as 1/2 inch in diameter. Speeds of from a few inches per minute up to 16,000 R.P.M. are attainable. Belt-pulley friction eliminates lubrication and the rubber surface reduces noise. Oil dripping on the belt surface does no harm. The belts are available over a large range of speeds and sizes.

Versatile Filler

DICALITE, mined by the Dicalite Co., Chicago, is well known to the industries covered by this publication. At times it is used for but a single purpose. Since it may be employed for a number of uses, some manufacturers may be interested in investigating the material as filter aids, as a filler, as an addition to concrete

mixes to improve their workability and lower their cost, as a carrier for insecticides and as an insulating material. Prospective users may write to the company for free consultation with one of its local engineers or to enlist the aid of its laboratory service.

Marion Pulverizer

A PIECE of equipment that is growing in use in the soap and chemical industries is the "Marion Finisher" made by Rapids Machinery Co., Marion, Ia. Designed to pulverize materials that have become lumpy in storage, etc., the machine reduces aggregates to various degrees of fineness. The "Marion Finisher" is furnished with screens of different sizes for various particle sizes. It has only one moving part—the rotor. The "Finisher" occupies a floor area of 36 x 24 inches and is 16 inches high. It has been installed in some plants between Marion mixers and conveyors. The equipment has been found to be a time saver in production line operations.

Snell 30 Anniversary Book

To mark its 30th anniversary in the field of chemical consulting and testing, Foster D. Snell, Inc., New York, recently issued a 32-page humorous history of the firm. The booklet traces the growth of the firm from a one man organization to its present status with 100 employees and quarters in New York, Bainbridge, N. Y., and offices or associates in England, France, The Netherlands, Italy, India, Australia and Mexico. The story is told by the building and caricatures members of the staff as well as some of the activities that take place in the course of offering "every form of chemical service." Copies are available by writing the public relations department.

Volumes on Soybeans

Soybeans and Soybean Products edited by Klare S. Markley. Published by Interscience Publishers, New York. 6 x 9 inches, cloth binding, two volumes, price of each volume: \$11.00.

This text is a compilation of a series of monographs presented in two volumes. The first volume of three

sections contains discussions on (1) production, (2) structure and composition, and (3) processing. The technological processes are presented primarily from the viewpoint of present industrial practice in the United States, but the general treatment is world wide in scope.

Volume II contains the discussion on processing, and includes the fourth section on the utilization of soybean products. Soybean oil by-products, protein industrial and food products, and other soybean products are discussed in the second volume.

New Celanese Glycols

Commercial output on two new glycols, one of which is said to be suitable as an intermediate for surface active agents, the other in specialty soaps was begun recently by Celanese Corp. of America, New York. Uses of 1,3 butylene glycol, a coupling agent and high boiling solvent, include its application as an intermediate for surface active agents, while 2,3 butyl glycols has physical properties that are said to suggest its use in specialty soaps, etc.

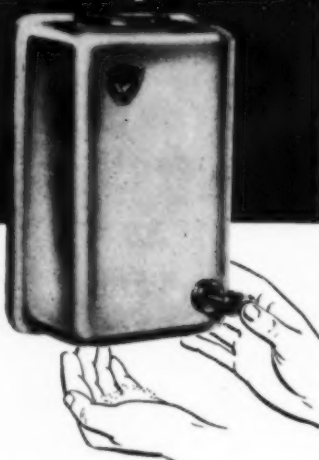
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full dispenser profit!

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in shiny monel
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baked enamel



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90% distills within range of 7°C. which betters Pharmacopoeia requirements.

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SOAP and SANITARY CHEMICALS

USDA Booklets on Cleaning

The U. S. Department of Agriculture has issued a pamphlet describing a selected list of publications dealing with home economics. Covering a variety of topics such as stain removal from fabrics; washing, cleaning and polishing materials; DDT for the control of household pests and others, the list is available from the department.

Tenn. Eastman Catalog

Publication of its 1951 catalog of industrial chemicals, including sodium cellulose sulfate, the new water soluble cellulosic, was announced recently by Tennessee Eastman Co., Division of Eastman Kodak Co., Kingsport, Tenn. The 1951 edition includes specifications, properties and typical uses of all of the 55 industrial chemicals manufactured by the company. Sodium cellulose sulfate, first introduced by Tennessee Eastman in 1950, is recommended for use as a detergent additive. Copies of the catalog are available upon request to the company at Kingsport, Tenn.

Materials of Construction

Materials of Construction for Chemical Process Industries by James A. Lee. Published by McGraw-Hill Book Co., 330 W. 42nd St., New York. 468 pages, 6 x 9 inches, cloth binding. Price \$6.50.

Chemicals and chemical combinations are listed in this book, including a description of each, then a discussion of the corrosive-resisting qualities of the materials used in production, handling and packaging of each chemical. More than 300 chemicals and chemical products are listed in this book. Among them are the following: soap, alkyl aryl sulfonates, aryl sulfonates, bleaching powder, alkyl resins, bleaching solutions, caustic soda, caustic potash, essential oils, soda ash and soda lye.

Chemicals are listed alphabetically. Included is a discussion of the production processes, materials used in production and the corrosion resistance of these materials, corrosiveness of the finished product and materials for han-

dling the product, and the corrosive-resisting properties of materials used for shipping containers.

Flow charts of the production of some of the chemicals are included, together with specifications of the materials of construction for the various units and apparatus. Such charts are available for the production of: soap, alkyl aryl sulfonates, caustic soda, ethyl alcohol, fatty acids, soda ash and some other chemicals and products.

A directory of materials is included in the back of the book, listing more than 550 materials available for construction, together with a description of the product and the manufacturer.

Producing New Basket

Franklin Metal Products Co., Chicago, manufacturers of self-cleaning sand urns, announced that their new wastebasket is now in production. According to the company, the basket is built to meet government specifications and fire regulations. It is known as the #1500 streamlined "Executive." The basket is 12" x 12" x 15", made of steel, with 1/4" concealed wire around the entire top. The basket has a baked enamel finish and comes in green, gray or walnut.

Toilet Soap Survey

The brand name of a toilet soap was indicated as the basis of preference by 47 per cent of a female group and 57 per cent of the male group of students at the Institute of Economics in Berlin, in response to a recent survey at the institute. Perfume, price, and feel or fattiness, in decreasing importance, were other considerations which influenced the female students; while the men listed these factors in the following order: perfume, feel, and price. Qualities looked for in a soap were indicated as: good lather, good cleaning properties, and economy in use. Regarding the kind of perfume preferred, more than half of both men and women asked for a soap which was lightly scented, but of the balance, more men than women asked for a strong perfume. *Manuf. Chem.* 22, No. 1, 3 (1951).

Form Rug Cleaner Firm

Establishment of Leeco Products at 2716 North Henderson, Dallas, Tex., for the manufacture and distribution of a carpet, rug and upholstery cleaning compound was announced last month by LeRoy D. Cole and William G. Anderson, owners of the business. The factory and sales and service department have been set up in Dallas and a branch is to be opened shortly in Fort Worth. Mr. Cole is a graduate of the University of Maryland and was in the cleaning business in Washington, D. C., before going to Dallas. W. G. Anderson was educated at Southern Methodist University. He was engaged in sales work in Hollywood, Calif., previously.

Briefs Volume

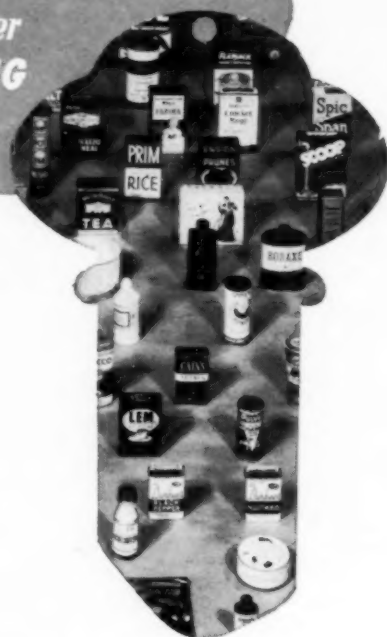
Schimmel Briefs Vol. 1, No.'s 1-189. Published by Schimmel & Co., Inc., New York 8 1/2 x 11 inches, coated cover, plastic spiral binding. Price \$7.50.

The *Schimmel Briefs* which have appeared as individual monographs in monthly bulletins issued over the past fifteen years, have been collected in one volume to form a handbook and reference work on the important developments in technology relating to the manufacture of perfumes, and their use in soaps and cosmetics.

There are 189 *Briefs* dating from April 1935. As indicated in the preface to the text, some of the information contained in the early issues of the *Briefs* has become outdated. However, newer and improved formulas have been included in subsequent monographs. A particularly valuable feature of the book is a detailed index which refers to various formulations in the monographs.

Discussion of and formulations for soap manufacture, superfatting, bleaching and clarification; the use of lanolin, castor oil, and fatty acids in soap; liquid soaps, germicidal soaps, floating soaps, perfuming of soaps, and various other phases of soap are covered in the monograph. Discussions of shampoos include processing, and additives. The alkyl sulfates and alkaryl sulfonates are also mentioned, as are shaving creams and soaps and humectants for shaving products.

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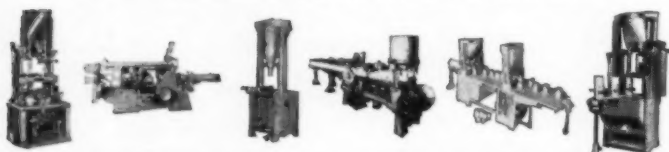
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U.S.I. CHEMICAL NEWS

April

★

A Monthly Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★

1951

Stainless Steel Hardened By Liquid Nitrogen Is More Versatile

A newly developed process is said to render stainless steel some 100 per cent harder than normal and to make it a far more versatile metal. The process involves heating the steel for a short time at about 2100° F., quenching in water, cooling to -300° F. in liquid nitrogen, rolling at that temperature from 1/4 inch down to 1/16 inch, and then aging at 750° F. for several hours. This combination of treatments reportedly produced not only great hardness but also increased tensile strength, yield stress, proportional limit, torsional yield stress, and fatigue strength.

One sample is claimed to have differed slightly in composition from the others. Its wear-resistance was described as equal to or greater than that of the best wear-resisting metal combinations known. This result has not yet been fully investigated, but if this characteristic can be reproduced, it should permit a great increase in the possible applications of stainless steel.

New Simplified Test For Water Hardness

A new method for determining hardness of water is based on a simple titration and is described as faster and more accurate than the older soap test. The titrating reagent in the new test is a standardized solution of disodium ethylene diamine tetraacetate, which reacts with calcium and magnesium to form soluble un-ionized complexes. A hardness indicator that is red in the presence of calcium and magnesium ions and blue in their absence gives the endpoint of the titration. Each milliliter of reagent used equals 20 parts per million of total hardness as calcium carbonate when a 50 milliliter sample is used.

Antibiotic Handbook

A manual has just been published which attempts to digest and correlate in a single book all the essential information on the numerous antibiotics isolated and studied to date and to organize them in ready-reference form. The new handbook gives methods of production, chemistry, toxicology, pharmacology, bacteriology, and related information. Bibliographies are all up to date to 1950 and thorough indexes to micro-organisms and antibiotics formed are included. Antibiotics are treated in alphabetical order.

New Resorcinol Assay Cuts Time and Error

Tedious water extraction of resorcinol in paste and ointments can be eliminated by extracting the pastes with hydrochloric acid and ether, according to a government scientist's report. The scientist points out that in extracting a strong resorcinol paste with hot water, the filter becomes clogged so that filtration usually takes several hours.

Coatings Produced With Aroflint Are Finding Many Specialty Uses

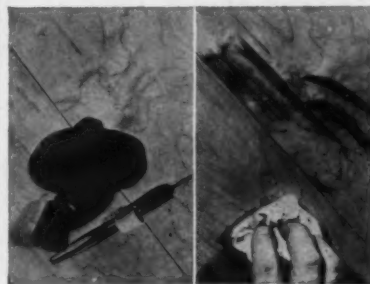
**AROFLINT Coatings Combine Hardness, Chemical Resistance
— Are Ideal for Floors, Furniture, Many Industrial Uses**

AROFLINT 131, a room temperature curing phenolic-type resin introduced last November by U.S.I., is finding important applications because of the unique combination of properties it imparts to clear wood finishes. It makes

possible the production of air-dry coatings that parallel phenolic molding resins in hardness, toughness, and resistance to solvents, chemicals, water, and heat.

Widening Circle of Uses

Coatings made with AROFLINT are al-



Effect of nail polish on panels coated with conventional furniture finish and with a coating made with AROFLINT. Conventional finish (panel on the right in each photo) is permanently damaged, while AROFLINT coating (on the left in each photo) is unaffected.

ready finding use on home furniture and floors; bars; industrial equipment such as textile bobbins and shoe lasts; and specialties — salad bowls for example. AROFLINT coatings are now under serious consideration for commercial use on office, school, and hotel furniture; sporting equipment; marine finishes; tool handles, hat forms, industrial equipment; gymnasium floors; and similar applications.

New Catalyst Improves Stability, Adhesion

Since AROFLINT's original introduction, development work has continued in an attempt to adapt it for still further uses. The result has been the introduction of a new catalyst for use with AROFLINT which imparts two distinct advantages. (AROFLINT is cured or dried by catalytic action, the catalyst inducing condensation and polymerization of the resin.) The new catalyst, known as U.S.I. Accelerator FX 134, permits formulation of a far more stable material since mixtures of the resin solution with FX 134 have a stability of 30-60 days, as compared to only four or five days with the originally recommended catalyst.

Potential Uses in Metal Coatings

The new catalyst also improves the properties of AROFLINT coatings on metal,

MORE

Methionine Melting Point No Criterion of Purity

The chemical literature^{1,2} indicates that amino acids as a class exhibit no sharp melting points because of their thermal instability at high temperatures, and methionine is no exception to this general behaviour. This important essential amino acid has no true melting point, but is decomposed by heat over a range of temperature which is entirely dependent on the conditions of the melting point determination. For example, when a highly purified sample of methionine is heated at the rate of 3°C. per minute, starting at 20°C., the decomposition point was found to be 262°-262.5°C. When heated at the same rate, but this time starting at 260°C., the same sample was found to decompose at 271.6°-271.9°C. The decomposition point of the same sample varied from approximately 262°C. to 272°C., depending on the length of time the sample was in the heating bath. The conclusion is that the apparent melting point of methionine varies widely according to the conditions of heating and is of little use either for identification of this substance, or as a criterion of its purity.

(1) Taylor and Baker, "Siddewick's Organic Chemistry of Nitrogen," Oxford Press, New Edition, p. 105.

(2) Shriner and Fuson, "The Systematic Identification of Organic Compounds," John Wiley and Sons, 3rd Edition (1948), p. 181.

New Drug for Peptic Ulcer

A new drug, claimed to have brought healing and caused disappearance of ulcers often in a matter of weeks, is being hailed for its promise of relief for ulcer patients who do not respond to conventional therapy. The drug, based on studies showing that female ulcer patients generally become free of symptoms during pregnancy, represents a fundamentally new approach to treatment of peptic ulcer. Studies have failed to reveal any undesirable side effects, according to researchers. Out of 16 patients given the drug after 15 weeks of unsuccessful conventional treatment, 15 are claimed to have become free of symptoms in four to six weeks.

April

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U.S.I. CHEMICAL NEWS

★

1951

High Speed, Automatic X-Ray Inspection Of Industrial Products

A new industrial X-ray development is expected to make possible high-speed, automatic inspection of thousands of industrial products. Core of the new inspection apparatus is a tiny crystal called a "semi-conductor." When excited with X-ray radiation, it acts as an amplifier tube. The crystals reportedly amplify the energy they receive one million times. On an area-for-area basis, they are over a million times more sensitive to X-rays than are the ionization chambers commonly used to measure X-ray radiation, and more than one thousand times more sensitive than photo-electric cells like those used in "electric-eye" applications.

Acrylic Dental Fillings

A catalytic method for polymerizing acrylic resins at low temperatures to make possible their use as dental fillings was described at a recent scientific meeting. Advantages claimed for these resins are that they can be made to match tooth color quite readily, are comparatively inert in oral fluids, and may be inserted quickly and easily into tooth cavities. Government researchers are continuing work to overcome several disadvantages, which include a larger shrinkage than direct filling materials, color changes, and the release of heat during polymerization in the tooth.

CONTINUED

Aroflint Coatings

since it imparts better adhesion to metallic surfaces, so that AROFLINT now has many potential uses in metal coatings as well as in wood finishes. Coatings catalysed with the new FX 134 have been found useful for numerous special applications on rigid metal surfaces. AROFLINT 131 without catalyst can also be utilized as a baking finish on metal in the production of chemical- and solvent-resistant coatings for tanks, drums, and similar applications.

Aluminum Oxide Lab Ware Is Strong, Non-Porous, Resistant to Corrosion

Development of a successful process for making crucibles and other laboratory ware from aluminum oxide has been reported. The crucibles are said to be 99.8 per cent pure, strong, and of a transparency rivaling that of fine china. They will not break when dropped from a height of several feet and are non-porous, highly resistant to corrosion, and not subject to chemically-induced changes.

The material reportedly has a compressive strength of about 500,000 pounds per square inch which it retains up to about 2000°F. It is expected to be useful in applications involving the high temperatures necessary to melt super-hard metals. One possible use for the material is as an alloy in making cutting tools to machine super-hard metals. Another possibility, for use in jet aircraft parts subject to high temperatures, is mixing metal and the aluminum oxide ceramics.

Shirtsleeve Chemistry — Linen from Seed Flax

A new chemical retting process may make it possible to increase world production of both linen and linseed oil without increasing acreage of flax. Nearly all the linen produced now comes from flax grown specifically for that purpose—flax pulled while still green, before much lignin has developed in the stems. Flax grown for seed is allowed to mature and the straw discarded as waste because, with its high lignin content, retting it for producing linen was considered impossible.

In the new process, ripened seed-flax straw is subjected to decortication in a special machine under controlled humidity. The resulting material is made into a roving which is chemically retted by dilute solutions of alkaline sodium hydrosulfite under controlled pH, temperature, and concentration. The product is washed and spun wet to yield high grade linen yarn which tests indicate is as good as imported linen.

TECHNICAL DEVELOPMENTS

Information about manufacturers of these items may be obtained by writing U.S.I.

"Shock-treating" liquids and solids in liquid suspension with a new "mill" in which a high speed circular saw strikes a jet of liquid is said to modify properties of slurries, change viscosity of solutions, affect degree of polymerization, and speed up reaction rates. (No. 676)

For fast, precise, automatic determination of moisture in ether, alcohol, acetone, benzene, chlorinated hydrocarbons, and most solvents, and in solids, a new instrument is on the market. (No. 675)

A chamois-type fabric, said to look, feel, and absorb water like natural chamois yet cost 1/3 as much, reportedly withstands gasoline, grease, and powerful detergents. It can be used to clean walls, floors, mirrors, windows, tile, and autos. (No. 671)

A new phenolic resin for hot-press plywood gluing is claimed to produce glue lines passing government military specifications. (No. 672)

For high precision measurements of dry thickness of non-electrical conductive coatings and other sheet-like materials (including aluminum and other non-ferrous metals), a new instrument is available. (No. 673)

For adhering polyvinyl chloride finishes to rusty steel, a new primer is said to reduce "creep" from rusted surfaces to a small fraction of that with regular primers. (No. 674)

A new service for plants using instrument tubing or fluid transmission lines subject to moisture or corrosive atmospheres involves extruding a chip-proof, corrosion-resistant vinyl or polyethylene coating over the customers' tubing. (No. 675)

A new low-cost, spray-type deodorant for household use is claimed to electrostatically precipitate, absorb, and "wash" away odors and smoke. (No. 676)

An extra high heat resistant aluminum paint (silicone-based) fuses with surface metal immediately on application, withstands temperatures up to 1,700°F., and forms a bright, elastic finish resistant to moisture, corrosion, mild acids, alkalis and industrial fumes, according to the makers. (No. 677)

A new antistatic and cleaning agent for methyl methacrylate moldings, sheets, etc., is described as an inexpensive, highly effective, fast-drying, easy-to-apply liquid. (No. 678)

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PRODUCTS AND PROCESSES

Food Plant Detergents

Oily tuna cans were washed satisfactorily, using a .3 to .5 per cent solution of alkyl aryl sulfonate detergent, with enough trisodium phosphate added to maintain a pH of 9 to 10. The solution was not harmful to the cans. *Food Inds.* 22, 1721 (1950).

Synthetic Det. Shampoo

An improved synthetic detergent shampoo is formed by combining the salts of sulfuric acid esters of higher aliphatic secondary alcohols with soaps of 30 to 40 per cent rosin. Improved lather properties and washing power are effected. Dutch Patent 66,298 through *Soap Perf. & Cos.*, 24, No. 3, 263 (1951).

Foaming Cleaning Base

A cleaning composition with good foaming properties to be used with soap for various uses is prepared as follows: Heat 100 kg. of rosin and 46 kg. of 23 per cent triethanolamine solution in an autoclave at 129° for two hours. Stir the mixture every 15 minutes. Add five per cent sodium lauryl sulfonate or sodium cetylsulfonate and .5 to one per cent potassium persulfate (suspended in 5-10 parts of water). Boil for two to three hours, until all active oxygen is evolved. Let stand for three or four hours, and mix with 25 to 75 per cent sodium metasilicate. Ital. Pat. 444,081 through *Chem. Abstracts*.

Oils for Liquid Soaps

Coconut and palm kernel oils give a profuse but thin lathering liquid soap, and may, therefore, be coupled with peanut, olive or soya bean oils, all of which tend to thicken the lather and increase the detergent properties of the soap. Castor oil or distilled red oil help to produce a clear product. Blends of oils suggested for liquid toilet soaps made mainly with caustic potash are:

- (1) coconut 65, olive 25, castor 10 parts.
- (2) coconut 70, castor 20, soya bean 10 parts.
- (3) palm kernel 75, castor 15, olive 10 parts.
- (4) olive 80, coconut 20 parts to yield a so-called "Castile" liquid soap. *Indian Soap Journal* 16, No. 6, 147-153 (1951).

Wash Machine Detergent

A detergent designed for use in automatic washing machines contains pyro or tripolyphosphate, starch, soda ash or bicarbonate, carboxy methyl cellulose and a sodium silicate plus a synthetic detergent. The silicate must have an alkali-silica ratio between 1:2 and 1:3.2; and the mixture must contain 10 to 25 per cent silicate solids. The product is free flowing and does not etch or corrode the soft metals or vitreous enamels of which the washing machines are made. *Silicate P's & Q's* Vol. 31, No. 3.

Optical Bleaches

An optical bleach which may be used satisfactorily on animal and cellulose fibers is prepared as follows: 54.8 parts of nitrous compound, obtained by reacting 18.5 parts of cyanuric chloride with 40 parts 4-nitro-4'-amino-2,2'-stilbenedisulfonic acid, is treated at 20 to 25° then at 90 to 95° with 28 parts of concentrated ammonia. The reaction product is reduced with iron and hydrochloric acid, then treated with 26 parts of 4-chlorophenoxyacetic acid chloride, 17 parts of sodium acetate in benzene. The product is a slightly yellowish powder. Swiss Pat. 268,381 through *Chem. Abstracts*.

Bar Form Synthetic

Synthetic detergent toilet bars or tablets may be prepared by combining eight parts of a purified sodium salt of carboxy-methyl cellulose, containing about three per cent sodium

chloride, with a solution containing ten parts of the sodium salt of a sulfated aliphatic alcohol and 38 parts of water. The mixture results in a jelly which is combined with three parts of lanolin and 41 parts of magnesium carbonate, forming a paste which is molded into tablets or bars. Brit. Pat. 646,434.

Car Polish Products

An emulsion paste polish suitable for use on both paint and metal work consists of the following:

	parts by weight
Rosin	3
Carnauba wax	4
Paraffin, 140° F.	7
White spirit	36
Bentonite	6
Water	38
Soda ash	3
Glycerol	3

The waxes and rosin are melted, combined with paraffin, and thinned with white spirit. The bentonite is made into a paste by combining with a small amount of water. More water is added gradually to the bentonite paste, and the final quantity of water is added as a solution containing the soda ash and glycerol. The mixture is added gradually to the waxes-solvent combination, with continuous stirring. The formulation imparts a mild abrasive action to the polish and its evaporation rate is controlled by the glycerol.

A safe formula for an abrasive paste cleaner is given below. It may be modified to suit particular needs.

	parts by weight
Dry soap (Arisa)	6
Soda ash	4
Sulfonated oil	5
Silmina 120 mesh	19.5
5% bentonite water	65
Jewelers' rouge	.5
Pine oil	q.s.

Regarding the wax paste products, polishes containing more than five per cent of prime yellow carnauba wax will not set to a homogeneous product but will have a grainy texture and a generally rough appearance attended with solvent bleeding. These troubles can be avoided by using fatty or chalky gray carnauba. *Manuf. Chemist* 22, 2, 59-61 (1951).

EXQUISITE FLORALS FOR SOAPS

Apple Blossom	Honeysuckle	Rose
Carnation	Hyacinth	Sweet Pea
Clover	Jasmin	Syringa
Fougere	Lavender	Verbena
Gardenia	Lilac	Violet
Geranium	Lily of the Valley	Wisteria

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SOAPS AND SYNTHETIC DETERGENTS

Patents are yardsticks by which technical advances in any industry are measured. Over 2,540,000 patents have been issued to date, and the Patent Office has over 120,000 more awaiting processing in 1951. Knowing the total patents in a certain classification, or in a particular sub-classification — plus main technical claims — can be a very revealing study to a technical man or woman. Soap and Sanitary Chemicals has arranged to provide certain Patent Group-Lists for its technical readers, the subject matter embracing items of wide current interest. By studying this Group-List a Research Chemist can discover new materials and methods and today's technical thinking on subjects

in which he is vitally concerned.

The first Patent Group-List is SOAP AND SYNTHETIC DETERGENTS (SD-3). A total of 65 of the 181 patents shown have expired. Exact expiration dates of the remaining patents are given. Subject matter includes: Synthetic Detergents, 68 patents; Disinfecting and Medicated Soaps, 15; Shaving, 14; Brushless Shaving, 6; Toilet, 35; Water Softening, 4; Soap Processing, 25, etc. Technical claims on which the patent was granted are shown. Offset printed on one side only of 8½" x 11" page. Ask for Group-List SD-3.

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OTHER GROUP-LISTS OF INTEREST TO

Synthetic Detergents No. 1 \$2

206 expired patents. Including Toilet Soaps, Household and Heavy Duty Cleaners, Textile Detergents, Paint and Varnish Removers, etc.

Synthetic Detergents No. 2 \$4

Over 200 patents shown. Same subject matter as foregoing. Patents show expiration dates.

(NOTE: Patents are not duplicated in these 3 Group-Lists)

SOAP & DETERGENT MANUFACTURERS

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Synthetic Resins With Ion-Exchange Applications \$5

The U. S. Patent Office's own compilation of USES of Synthetic Resins with Ion-Exchange Miscellaneous Applications. Complete through 1950. 166 patents with expiration dates.

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The data listed below is only a brief review of recently issued pertinent patents obtained by various U. S. Patent Office registered attorneys for manufacturers and/or inventors. Complete copies may be obtained direct from Lancaster, Allwine & Rommel by sending 50c for each copy desired. \$1.00 for Canada. They will be pleased to give you free preliminary patent advice.

No. 2,535,077. Germicidal Soaps Containing Halogenated Dihydroxy Diphenyl Methanes, patented by Eric C. Kunz and William S. Gump, Montclair N. J., assignors, by mesne assignments, to Sindar Corporation, a corporation of New Jersey. The patent describes a germicidal detergent soap comprising soap and a minor proportion of 2,2-dihydroxy halogenated diphenyl methane.

No. 2,535,000. Insecticidal Composition Comprising DDT and Methoxychlor, patented by Robert A. Sturdy, Quincy, Ill., assignor to Moorman Manufacturing Company, Quincy, Ill., a corporation of Illinois. The patent describes an insecticide composition containing as active ingredients, in synergistically effective proportions, DDT and methoxychlor.

No. 2,535,972. Alkylbenzene-sulfonate Detergents Containing Guanidine Salts of Inorganic Acids, patented by Emil A. Vitalis, Springdale, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine. A composition is described consisting essentially of a detergent mixture of 98% to 50% by weight of a member of the group consisting of sodium, potassium and ammonium salts of an alkylbenzene-sulfonate containing a single long alkyl radical of 10-16 carbon atoms and 2% to 50% of a water-soluble guanidine salt of an inorganic acid.

No. 2,534,926. Insecticide Comprising Benzene Hexachloride and Tar Oils, patented by Newville F. Rea, Sumner, Wash. The patent describes an insecticide comprising an emulsifiable concentrate wherein tar

acids and tar acid oils are present to the extent of approximately 72%, and the remainder consists essentially of emulsifying agents and water, in which concentrate has been combined approximately 5% additional of benzene hexachloride containing approximately 10% of the gamma isomer of benzene hexachloride.

No. 2,526,614. Dentrifrice Composition, patented by George P. Butterfield, Des Plaines, Ill., assignor, by mesne assignments, to Amion, Inc., Chicago, Ill., a corporation of Illinois. The patent covers a topical preparation having an anti-enzymatic activity toward acidogenic organisms of the lactobacilli type, comprising a dry mixture capable of reacting with moisture in the presence of *Lactobacillus acidophilus* to liberate ammonia, said mixture containing urea, a urease-containing substance and a carrier therefor compatible with the urea-urease function of liberating ammonia in the presence of moisture, said urea being present in an amount not over 30% by weight of said mixtures.

No. 2,535,052. Insect Repellents, patented by Nathan L. Drake, College Heights, Md., and Charles M. Eaker, Affton, Mo., assignors to the United States of America as represented by the Secretary of the Army. An insect repellent composition is covered comprising the cyclopentyl ester of 2-oxo-cyclopentanecarboxylic acid in a non-gaseous inert organic carrier.

No. 2,535,080. Insect Repellents, patented by Melvin S. Newman, Columbus, Ohio, and Barney J. Magerlein, Kalamazoo, Mich., assignors to the United States of America as represented by the Secretary of the Army. The patent describes an insect-repellent fabric comprising fabric impregnated with the allyl ester of alpha-methylepoxy-cyclohexylidene-acetic acid.

No. 2,534,008. Insecticidal Paper-Coating Compositions, patented by George W. Fiero, Port Chester, N. Y., and Howard F. Seeland, Little Silver, and George H. Batt, Rahway, N. J., assignors, by mesne assignments, to Standard Oil Development Company, a corporation of Delaware. The patent describes a non-alkaline insecticidal paper coating composition consisting by weight of

Parts	
Dichloro-diphenyl-trichloro	
ethane	20

Clay	19
Suspending and wetting agent	2.5
Octyl alcohol	0.2
Chlorinated starch solution	8.8
Water	50

No. 2,542,518. Dentifrice, patented by Chester J. Henschel, New York, N. Y. The patent describes a powdered dentifrice including the following ingredients in substantially the following proportions by weight:

Parts	
Urea	15 to 50
Di-ammonium hydrogen phosphate	7 to 4
Abrasive	71 to 34

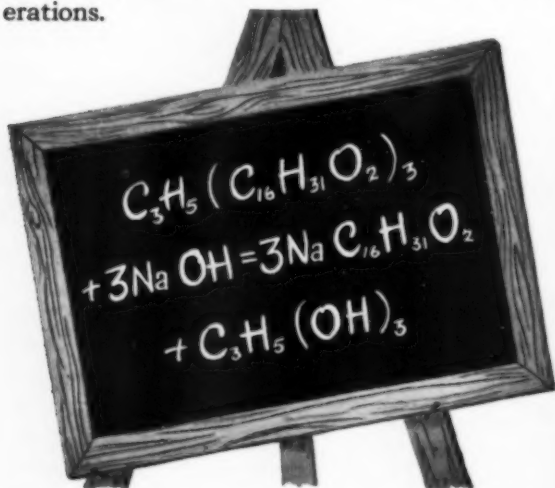
No. 2,542,886. Dentifrice, patented by Edward C. Wach, Chicago, Ill., assignor to The University of Illinois Foundation, a non-profit corporation of Illinois. The patent describes a dentifrice comprising approximately 3 per cent by weight of urea, 5 per cent by weight of dibasic ammonium phosphate and an inert non-sugary carrier adapted for oral administration.

No. 2,542,061. Powdered DDT Concentrate, patented by Charles M. Smith, Silver Spring, Md.; dedicated to the People of the United States of America. The patent describes an insecticide comprising a powdered mixture of DDT and a silica aerogel, said DDT ranging in proportion from about 50 percent to about 99 percent, by weight, of the mixture, the aerogel having a bulk density of not more than about nine pounds per cubic foot.

No. 2,540,311. Mothproofing Composition and the Application thereof to Fabrics from Dry Cleaner's Solvent, patented by Ernst A. Wolff, Plainfield, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey. The patent covers a process for mothproofing woolen fabric that comprises saturating such fabric with an impregnating solution comprising dry cleaners solvent having dissolved therein 2 to 4% by weight of a mothproofing composition composed of 1,1-bis-(p. chlorophenyl) 2,2,2-trichloroethane and about 2 to 15% of its weight of a resin plasticizer selected from the class consisting of dibutyl phthalate, tri-o-cresyl phosphate, and methyl abietate as an agent to prevent crystallization of the 1,1-bis-(chlorophenyl) — 2,2,2-trichloroethane on the fabric, removing impregnating solution from the fabric until the amount of residual solvent is about 10 to 20% based upon the dry weight of the fabric, drying the fabric to remove the 10 to 20% of residual solvent in the fabric, thereby obtaining a mothproof fabric coated with 0.2 to 0.4% by weight of said composition.

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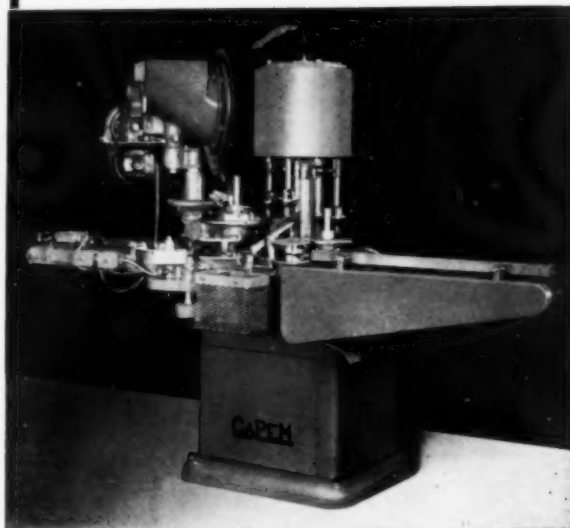
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BUFFALO 13, N. Y.

By John W. McCutcheon

EMERGENCY economic measures are very apt to upset the apple cart for both small and large manufacturer. Raw materials for the soap industry are beginning to be very hard to buy right now. Alkyl aryls for sulfonation have been hard to get for some months due to the tightness of benzene supplies. Practically no alkyl phenyls are available, either, except for established domestic customers. Tall oil is tight and high prices are making the availability of fatty raw materials for the soap kettle limited.

The use of substitute raw materials, or modified products, is in order. One way of diversifying fat supply sources is through hydrogenation. In America, this process has been confined generally to the large processors, principally because of the investment involved in obtaining a supply of hydrogen gas; not because the hydrogenator itself is expensive.

Of course, if a plant is located close to a good commercial source of hydrogen, say within 50 to 100 miles, it may be quite economical to transport and use it directly from cylinders.

Recently, methods have been developed for making hydrogen in a very simple manner by passing ammonia through an electric furnace. The labor involved principally consists of turning a valve on and off. The ammonia is transported easily and economically in liquid form in tank cars. The size of the plant and capital outlay are small. This new process was designed for small supplies of hydrogen for use in such processes as the bright heat treating of stainless steel, etc. It has reportedly been used as a source of hydrogen for oil and fat hydrogenation also, with which we are principally concerned.

Three manufacturers of the equipment are Sargent & Wilbur, Inc.

180 Weeden St., Pawtucket, R. I.; C. I. Hayes, Inc., 75 Baker St., Providence 5, R. I., and Drever Co., 748 E.



Venango St., Philadelphia 34, Pa. Much of the data given below have been made available through cooperation of these companies. The Drever company has experience in the use of this equipment in the field of oil and fat hardening.

When ammonia is dissociated, it yields a mixture of gas containing three volumes of hydrogen and one volume of nitrogen. The loss through leakage and undissociated ammonia is small and is probably below 0.25 per cent. This is scrubbed out in the cleanup tower. No catalyst poisoning gases are present.

During the hydrogenation process the nitrogen content of the gas rises, so that it is necessary either to purge the system periodically or to vent the exhaust gases continuously. Data appear to indicate that it is possible to design the hydrogenator to hydrogenate oils or fatty acids satisfactorily while continuously venting an 80 per cent nitrogen, 20 per cent hydrogen mixture. This loss of hydrogen must be taken into account in any overall evaluation of the process. In other

words, the normal procedure of hydrogenation by the re-circulation of the gas, requires modification and careful engineering by someone skilled in the field. It is also necessary to take into consideration the life of the ammonia dissociation catalyst, which must be replaced every two to three years.

A very rough tabulation of present costs follows:

Cost of 1500 cu. ft. per hour dissociator plus residual absorption tower, to produce approx. 9000 cu. ft. of hydrogen per 8-hour day	\$ 6,400
Cost of ammonia storage facilities	9,600
Cost of foundations, housing and installation	9,000
	<hr/>
	\$25,000

On the basis of venting a 20 per cent hydrogen, 80 per cent nitrogen gas, which represents a nine per cent loss, 1090 cu. ft. of hydrogen are required to permit 1000 cu. ft. absorption. On this basis, 1000 cu. ft. of hydrogen would cost:

Ammonia @ \$0.04 lb.	\$1.30
Power @ \$0.01 per K.W.H.	.25
Labor @ \$1.25 per hr.	.31
Losses—Basic—0.25% ammonia	.01
Catalyst replacement (30 mos. @ \$1,700.00 on above unit)	.25
5 year amortization of plant on yearly production of 2 million cu. ft. of hydrogen	2.50
Plant overhead @ 100% of labor	0.31
	<hr/>
Total	\$4.93

The favorable elements in such a process are its adaptability to small scale operation, its easy control and its comparatively low capital cost. The presence of nitrogen may possibly be an advantage since, selectively, in hydrogenation it is enhanced by dilution. Normann, in fact, if memory serves correctly, was granted a patent as early as 1900 covering the use of a gas such as carbon dioxide for just this purpose. For large scale operation, however, the process would not be economical because of the hydrogen loss in the purged gases.

A new word for synthetic detergents has cropped up, recent-

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Associated Chemical Co. of Canada, 14 Darrell Ave., Toronto, Ontario

ly—"syndets," the derivation of which is self evident. Perhaps a few definitions of common terms would not be amiss at this point:

Syndets—Synthetic detergents, non soap products designed for removing dirt, grime, etc. Examples—"Surf," "Tide," "Fab," "Trend," "Glim," etc.

Surfactants — Surface active agents. This is a coined term introduced by General Aniline and Film Corp. It has a broader meaning than Syndets, and includes, emulsifiers, and wetting agents, as well as synthetic detergents. Examples, "Tide," "Tergitol," "Tween," "Daxad," etc.

Sope—This term is coined from soap to represent a synthetic detergent base material, taking the place of soap. For example, "Rinso" and "Oxydol" are soap products, "Fab," "Tide" and "Surf" are sope products.

* * *

NOT long ago the writer was discussing modern detergent formulations with a manufacturer of builders. The point was raised as to whether or not a mild detergent could not be made which would have a variable pH as the temperature of the water increased. For example, a poly phosphate builder which would break down fast enough at elevated temperatures to yield the more highly alkaline orthophosphates. The thought behind this being that for general household use where the hands are in the water, cool temperatures and mild alkalinity would prevail. For automatic dishwashers, etc., with boiling water the higher and more efficient pH would prevail. This particular manufacturer passed the suggestion along to his research department and back came this answer: "The only materials we know that might break down fast enough for that use are the arsenates and, of course, they would have little use in the detergent field unless you were planning to do Joe Stalin's laundry."

Who's Who in Chemicals

Chemical Who's Who by Williams Haynes and Winfield Scott Downs. Third edition. Published by Lewis Historical Publishing Co., New

York. 895 pages, 6 x 9 inches, cloth bound, stiff cover. Price \$15.00.

This is the third edition of the only biographical dictionary of leaders in the world of chemicals, those in the chemical manufacturing industry, in chemical research and education. The new 1951 edition is larger than its predecessors, carrying something over six thousand brief biographical sketches of individuals in all fields of chemistry. According to Mr. Haynes, the editor, this edition was scheduled to be published in 1942, but World War II brought a nine year postponement.

Obviously, the compilation of a Who's Who of this nature is a large and pains-taking task. That some prominent persons, particularly in the business and sales end of chemicals, should be omitted probably is to be expected. Possibly they failed to supply new data to the publishers. Nevertheless, the current edition is well up to date and far more complete than its two predecessors, an important record of top personnel in our chemical world.—I. P. M.

Perfumery Book

Perfumery Synthetics and Isolates by P. Z. Bedoukian. Published by D. Van Nostrand Co., Inc., New York. 488 pages, 6 1/4 x 9 1/4 inches, cloth binding. Price \$7.00.

More than forty principal perfumery compounds are compiled in this text, on perfumery synthetics. The structural and chemical formula, molecular weight, occurrence, preparation, physical constants, chemical properties, manufacture, evaluation and analysis, trade and commerce of each compound is presented. An analytical section dealing with chemical methods, and physical methods of analysis, plus a section of vapor pressure graphs completes this text.

Compounds included in the book are as follows: acetophenone and homologs, aliphatic alcohols, aliphatic aldehydes, amyl cinnamic aldehyde, anisic aldehyde, anthranilates, benzaldehyde, benzophenone, benzyl alcohol, and its esters, borneol and iso-borneol, cinnamic acid and its esters, cinnamic aldehyde, cinnamyl alcohol citral,

citronellal, citronellol, coumarin, p-Cresol derivatives, cyclamen aldehyde, dimethyl benzyl carbinol, diphenyl oxide, eugenol and iso-eugenol, geraniol, heliotropin, hydratropic aldehyde, hydrocinnamic alcohol, hydroxycitronellal, indole and its homologs, ionone, alkyl gamma lactones, linallol, methyl heptene carbonate and homologs, beta naphthyl ethers, artificial nitro musks, macrocyclic musk compounds, nerol, phenylacetaldehyde, phenyl acetic acid, phenyl ethyl alcohol, phenyl methyl carbinol, salicylates, terpineol vanillin.

— • —

Antiseptic Detergent

A germicidal quaternary containing a five per cent solution of phenoxyethyl dimethyl dodecyl ammonium bromide has good detergency and high antiseptic action. It is marketed as "Bradosol," a clear liquid solution, and is made by Ciba Laboratories. *Chem. Products* 14, 17, Jan. (1951).

— • —

Du Pont Technical Service

Its technical service to manufacturers of shampoos and detergent products is discussed in the February-March number of *Du Pont* magazine, external house organ of E. I. du Pont de Nemours & Co., Wilmington, Del. Because of the fact that the firm does not make shampoos, but does make synthetic detergents ("Duponol" fatty alcohol sulfates) and aromatic chemicals, and thus has a share in the cleaning and cosmetic industries, Du Pont can give technical service and advice on products using these materials, the article points out. One of the most important jobs of the Du Pont research group working on shampoos is the formulating of bases for them. Over 100 shampoo producers have taken advantage of the company's technical advisory service, which provides laboratory work for many manufacturers, and which otherwise might not be possible for them.

A section of the article is devoted to new aerosol dispensed detergents, etc. For these products Du Pont can also offer advice on propellents, since it is the producer of "Freon" propellant gas for aerosols.

Essential Oils

(From Page 45)

longer available, and the Russian oil occasionally offered during the years of World War II seems to have been withdrawn from the market. As regards the Western Hemisphere, a few hundred pounds of oil per year have been produced regularly since about 1935 near Olympia on Puget Sound, Washington.² This venture must be considered as an experiment rather than a regular commercial enterprise. It has definitely proven, however, that lavender oil of good quality and normal ester content (38/42 per cent) can actually be produced in the United States, under favorable ecological conditions—but only if cultivation and harvesting can be carried out by mechanical means. If hand labor had to be employed—as is still done in Southern France—the prospects for financial success would simply be hopeless. The problem thus narrows down to one of designing and constructing an efficient harvesting machine, which may not be impossible, but certainly would be very costly.

In tropical countries lavender does not grow well; hence production of the oil in most parts of Central and South America is out of the question. There are some lavender plantations in the cool highlands of Mendoza (Argentina), but the plants seem to be other than true *Lavandula officinalis*, and yield an oil with a very low ester content (about 10 per cent). With proper and selected planting material introduced from Southern France high-grade lavender oil could most likely be produced in certain parts of Argentina, but that country's social laws, so partial to labor, discourage potential growers from entering this field. Even under favorable conditions, it is difficult enough to grow lavender, because the first harvest cannot be reaped earlier than three years after planting. In addition, the successful growing of lavender requires a great deal of experience. There are many

other crops much more promising to the producer.

LAVANDIN OIL: Distilled from the flowering tops of *Lavandula hybrida* Reverchon,³ this may be considered a lower grade of lavender oil, containing from 18 to 25 per cent of esters (calculated as linalyl acetate), instead of the 38/42 per cent in very good, and 50/52 per cent in highest grade lavender oils. The odor of lavandin oil is somewhat harsher and more camphoraceous than that of true lavender, hence its great usefulness in the scenting of soaps and technical preparations, as a lower priced substitute for lavender oil. Like the latter, oil of lavandin is produced almost exclusively in the south of France, particularly in the Département Basses Alpes, where large plantations yielding a very good grade of oil were started some years ago. Being a hardier plant, lavandin lends itself to cultivation on regular plantations much more readily than true lavender does; the latter yields less oil per acre, and the plantings are shorter-lived than those of lavandin. Practically all lavandin oil, therefore, originates from plantations, not from wild growing plants. Because of the relative ease of cultivation and the heavy demand for the oil, production of lavandin oil has increased from about 100 metric tons in 1939 to approximately 200 tons in 1948. As in the case of lavender, prices have recently risen substantially, a result, probably, of heavy inventory buying, but some relief may be in sight when the new harvest comes in, next August/September.

No lavandin oil has been produced commercially in the Western Hemisphere, nor have any attempts to this effect been made.

LEMONGRASS OIL: There are two types of lemongrass oil, the East Indian distilled from *Cymbopogon flexuosus* (D. C.) Stapf (fam. Gramineae), a grass grown extensively near the Malabar Coast in southwestern India, and the so-called West Indian type, derived from *Cymbopogon citratus* (D. C.) Stapf, a

grass cultivated widely on some of the West Indian islands, in Guatemala, Brazil, northern Argentina, Madagascar, the Comoro Islands, parts of Africa, and Indo-China. Both types of oil contain a high percentage of citral (up to 85 per cent, by the bisulfite method), but they differ in regard to solubility, the East Indian oil being more soluble in 70 per cent alcohol. Oil of lemongrass, the East Indian as well as the West Indian, is one of the most indispensable essential oils, being used widely, as such, for the scenting of soaps and technical preparations, and for the large-scale isolation of citral, which can be converted into the important ionones. B-Ionone is now employed as raw material for the commercial synthesis of Vitamin A. No wonder then that the demand for lemongrass oil has risen substantially in the course of the last years, and available supplies hardly cover present requirements.

a) *East Indian Oil:*¹ Recently prices have risen to unprecedented high levels. Sizable quantities are now unavailable, and only limited offers are being made. It seems almost as if the East Indian producers were simply trying to find out how much they can charge for the oil. What effect the recently enacted price stabilization regulation will have on future offers from India remains to be seen. Replacement prices today are probably higher than most present ceiling prices. This, by the way, applies not only to lemongrass oil, but to practically all essential oils mentioned in this survey.

In East India the lemongrass is grown by a great many native peasants, usually on small patches, and distilled in numerous primitive field stills. The oil reaches the exporters in Cochin through a chain of field and town brokers who purchase the small lots from native distillers.

In 1947/48 about 230 long tons of lemongrass oil were exported from India.

b) *West Indian Oil:* Heaviest

¹ "The Essential Oils", Vol. IV, p. 24, D. Van Nostrand Co., New York, 1950.

(Turn to Page 151)

² "The Essential Oils", Vol. III, p. 483, D. Van Nostrand Co., New York, 1949.

³ *Ibid.*, Vol. III, p. 492.

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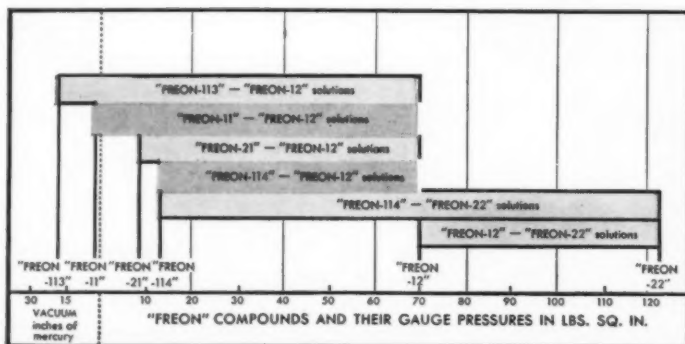
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"Freon" propellents are ideal for all types of aerosol products because they are *safe*. They're nonflammable, nonexplosive, of very low order toxicity, harmless to foods, furs, fabrics and finishes. These propellents are as pure as modern scientific manufacturing methods can produce. And in addition, "Freon" propellents are good solvents for insecticides such as—DDT, methoxychlor, Lethane 384 and chlordane, as well as hydrocarbons, alcohols, esters, ethers and ketones.

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Note the list of "Freon" propellents and the pressure chart below. The chart shows pressure ranges at 70°F. of several "Freon" propellant solutions.



"Freon" safe propellents

"Freon-12" — For high pressure aerosols such as insecticides, as well as for surface-coating products.

"Freon-12" and "Freon-11" solutions—Most widely used propellant.

"Freon-12" and "Freon-114" solutions—For products requiring extreme stability... such as cosmetics.

"Freon-22" in solution with other "Freon" propellents—For applications requiring special solubility characteristics and for pressure-boosting purposes.

"Freon-21"—For use where exceptional solubility and stability qualities are required in a neutral or acid medium.

"Freon-113"—For use with oxygen-containing products when special solvency is required.

What to do first

If you're considering pressure-packaging a product to enter the aerosol field... here's how to go about it:

1. Determine that there is a market for the contemplated product.
2. Develop a stable formulation, including propellant, which can be packaged in a suitable container.
3. Shelf-test the proposed finished-product package before production or sample merchandising is attempted.
4. Have a quantity packaged for test marketing. There are custom loaders who will fill quantities as low as 5000.

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A blending of modern soaps and synthetic detergents, fortified with a substantial portion of wax. For use on terrazzo tile and all floors not customarily maintained with wax. Eliminates scrubbing . . . provides a pleasing sheen when dry-mopped or polished. Retains safe anti-slip factor of bare floors.

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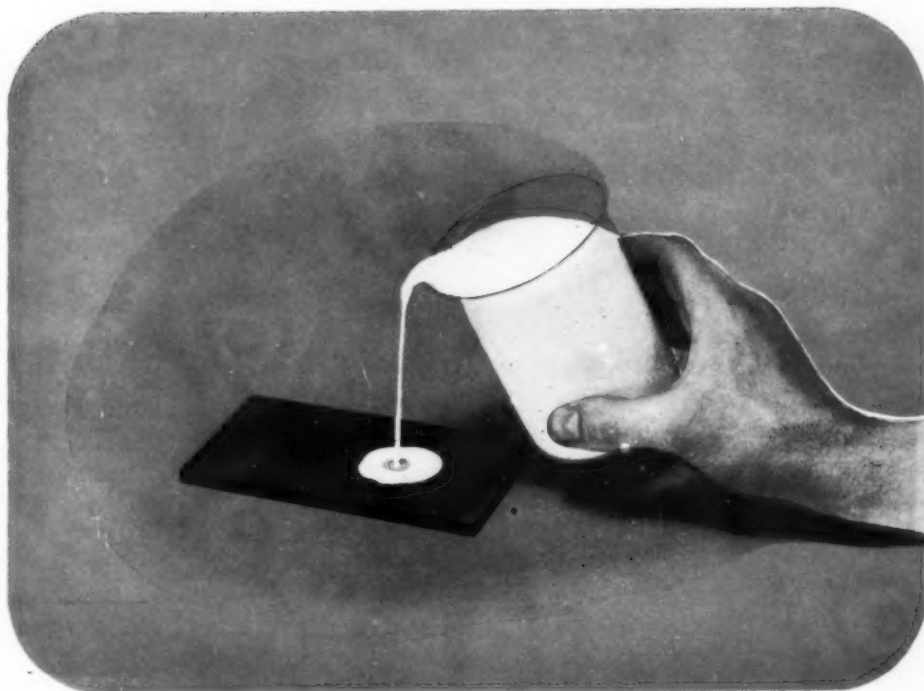
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APRIL, 1951

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to anyone"

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200
500
700
1035
23
36

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PETROLITE CROWN	Melting Point °F	Penetration with 100 gms.	Color N. P. A.	Acid Number	Sapon. Number
200	190/195	10 max.	Brown	Nil	Nil
500	190/195	10 max.	2 to 2½	Nil	Nil
700	190/195	5 max.	2 to 2½	Nil	Nil
1035	195/200	2 max.	2 to 2½	Nil	Nil
*23	180 min.	4 to 6	4 to 5	20-25	55-65
*36	180 min.	5 to 7	5 to 6	30-35	75-85

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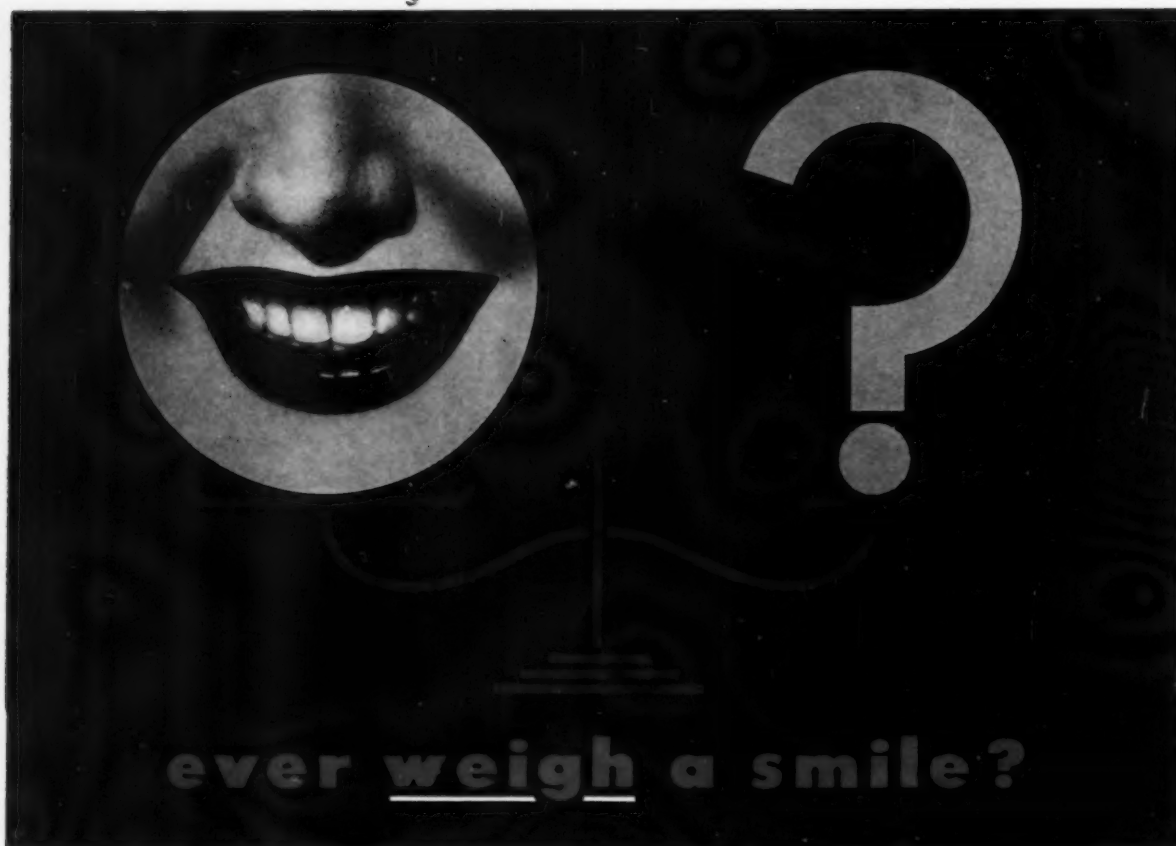


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Excerpt from a paper presented at the 37th Annual Meeting of the Chemical Sanitarians Manufacturers Association in December, 1938, by Harry Fletcher, Bureau of Ships, Department of the Navy. This paper was included in the Official Proceedings, Reports and Addresses of this meeting, published in February, 1939, in a special issue of "Soap & Sanitary Chemicals."

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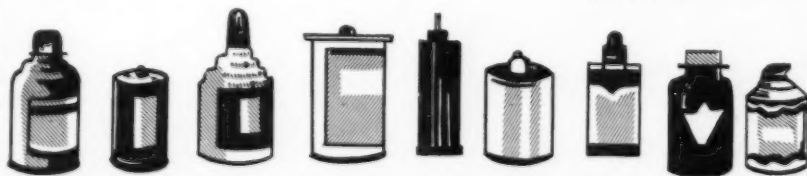
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For those of you who may have tuned in late here's a recap of the action. House Fly came out of his corner in that fast, buzzing style of his, danced around for a second and suddenly Household Spray floored him with a terrific uppercut. The moment it landed you knew House Fly could never get up. Just a minute, folks, here's Household Spray to say a few words. Tell me, Champ, how'd you feel in there? Did you think you'd get to House Fly that fast?

HOUSEHOLD SPRAY:

I felt very sharp. I was confident I could do it. You see, all my training has been designed for me to fight just that kind of a fight, thanks to my manager Geigy Methoxychlor "90". A fighter just can't lose when Geigy Methoxychlor "90" pours some of that 90% methoxychlor into him.

NED MUSING:

Who are you fighting next, Champ?

HOUSEHOLD SPRAY:

Oh, Mosquito, Ant, Moth, Roach and lots more if they stay around long enough. I've got their styles all figured out and I know they'll be pushovers just like House Fly.

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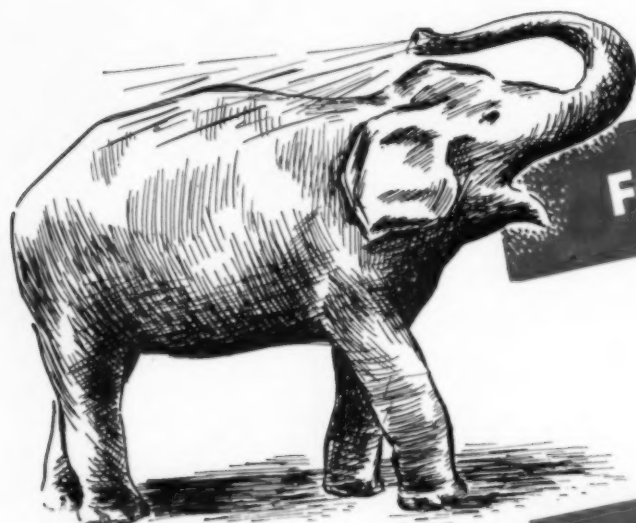
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SANTARY PRODUCTS

A SECTION OF SOAP

THE week of June 3, 1951, has been proclaimed "Sanitation Week" in Cleveland by Mayor Thomas A. Burke. That is the week of the National Sanitary Supply Association's 28th annual convention and merchandise exhibit in Cleveland. In marking the annual NSSA meeting by a special week, Mayor Burke stated the aim of the Association is to alleviate filthy conditions, insect and rodent infestations, and to aid generally in public education in efficient sanitation methods. That such desirable publicity is a fine thing for the industry, its products, and the general advance of cleanliness and sanitation goes without saying.

DDT supplies become a tougher problem for the household insecticide manufacturers as time goes on. Whether it be for conventional sprays or aerosols, sufficient DDT is difficult to get. Where the price a year ago was under thirty cents, reports of recent offers to users give a figure up to ninety cents for technical material. With demand for agriculture and military uses siphoning off the bulk of DDT as fast as it is produced, civilian requirements for household products could be lost in the shuffle.

Even with the benzene and chlorine situations being what they are, production of DDT is quite close to a 90,000,000 pound annual rate. From this total, it is believed in the sanitation chemical field, adequate supplies for civilian insect control and the public health problems involved should be kept available. Remembering how the armed forces over-bought insecticides during World War II, we feel that current procurement will be tempered accordingly. If DDT production is distributed equitably as we go along, present production should take care of our needs. At least, this is what the average household insecticide and

aerosol manufacturer hopes as the 1951 consuming season draws closer.

IF DEMAND for chemicals, soaps, insecticides, and what-not slackens off for a period of thirty days, or even less, chaos and confusion in no small measure could descend about our ears. As far as we can determine, inventories almost everywhere are heavy, all in anticipation of shortages and controls to come. That many wholesalers and dealers are stocked to the hilt, not only with durable goods, but with practically everything, is no secret. Already in some spots, overstocked warehouses show small signs of bulging at the seams. And, although demand remains active for some products, others reflect a drop since the beginning of March.

All this is intended to convey in a small way the idea that in our humble opinion, business right now is sitting on a keg of dynamite. Costs remain high on the whole, which also means that prices are high, high enough in some directions to be slightly topheavy. If the fighting in Korea should end suddenly or a truce of any sort be arranged, we would look for prices to hit the toboggan in a hurry. We would look for speculative holdings of everything,—and such holdings right now, we have a hunch, are tremendous,—to be dumped. In fact, we believe that we see signs in spots of slightly nervous reduction of inventories.

Everybody everywhere, it would seem, has been anticipating a repetition of markets which characterized the days of World War II. They appear to figure that the frenzied days of war buying are upon us again, which in fact, outside of stockpiling certain essentials, is not the case. Frankly, we would not be at all surprised to see some tapering off and uncertainty during the next few months.



Aerial view of the Huntington Laboratories plant at Huntington, Indiana, showing the original five-story brewery building built into the hillside in which the plant originated. Present office building is in the foreground.

brewery was suitable for the manufacture of liquid soap or not. But, they were glib talkers and sold stock nevertheless. When the depression of 1920 hit, they took their money and moved on to greener pastures, leaving the brewery still a brewery and no nearer a soap factory than when they arrived.

This all happened in Huntington, Indiana, something over thirty years ago and was the scene which greeted me on August 16, 1920, when I arrived in that city and undertook the job of converting a perfectly good brewery into a soap factory. The depression of 1920 had cut deeply into that community and we had very little money to invest in new equipment. Although I had vowed to do the conversion job on a scientific basis and make the right kind of products or none at all, we had no alternative but to use most of the equipment which the brewery had left behind. We converted its wood storage tanks into soap kettles by putting steam coils in them. For agitation, we hung a Chevrolet

The brewery switched to



WHEN prohibition hit America back in 1918, breweries all of a sudden had no place to go and closed their doors. Most of them became a drug on the market. A few carried on under the tender ministrations of the Capone and other bootlegging mobs. One or two went into the manufacture of a fluid which was termed "near-beer" by persons who obviously were poor judges of distance. But, the greater number of these surplus breweries stood empty, all juicy morsels for imaginative stock promoters and real estate speculators. Equipped, as they were with numerous vats, tanks, pipes and pumps, they were taken over for the manufacture of everything from soft drinks to glue.

In one instance, a former brewery was held forth by the promoters as an ideal set-up for the manufacture of liquid soap, and a dazzling

LIQUID SOAP

...and became the Huntington Laboratories thirty years ago. Today, it is one of America's outstanding sanitary chemical businesses. A brief story told by

J. L. Brenn

President, Huntington Laboratories, Inc.

future of fabulous profits was painted for all those who would buy stock in the venture. The promoters had no knowledge how to make liquid soap or any other kind of soap. They had not the slightest idea whether the

rear end over the top of each vat with a boat propeller on the end of each drive shaft. A maker of modern machinery would have had a big laugh at this early equipment, but it worked. From the beginning, we were careful

of our controls and made good products in spite of the handicaps.

Since the brewery was built into the side of a hill, we decided to save pumping costs by using gravity to carry our materials down through the five-story plant, all materials coming in at the top over the hill. We had a great assortment of make-shift equipment throughout the plant, which over the years was replaced gradually by the latest modern machinery.

When I first took over this potential soap factory, the office was filled with beer cases and the factory with beer barrels, the latter being converted for storage and shipment of liquid soap. We even inherited a complete brewery stable with teams and wagons, but it was not long before we traded these in to obtain our first motor truck.

Early in the days of our plant conversion, we were joined in our very serious scientific "experiment" by a young chemist by the name of Thomas Annan. He was a young man who had been a Marine in World War I and he brought with him an M.S. in chemistry which was really something in those days. Above all, Tom Annan was a scientist and very much laboratory minded. To his early and continuing scientific emphasis, we must credit a great deal of our success down through the years. Today's modern "laboratory plant" is the result of his patient building and development. He continues to be technical director and production boss of the plant in addition to serving as secretary-treasurer of the company.

Subsequently, the company hired another chemist, Robert Dolby, and built a shining new laboratory. Today, this laboratory is used for factory production control only and we have added better and more complete laboratories in a separate building. In addition, we now have five other chemists and chemical engineers on the staff. This is a far cry from the days when Tom Annan was chief chemist, production manager, laboratory assistant, and the whole research staff.

Gradually, over thirty years, the sanitation chemical industry has changed, improving greatly for

the better. New ideas, new products, always there has been something new and exciting to tackle. Not only have the old products improved much since 1920, but innumerable new ones have been developed so that the industry now bears little resemblance to that of a quarter-century ago. Whereas liquid soap was the main product of the old Huntington brewery of 1920, it is now only part of one group of products of which there are dozens, and has been supplanted by others in importance of plant production.

During the beginnings of operations at the brewery in Huntington, the family of products consisted of liquid toilet soaps and shampoos, deodorizing blocks, drain cleaners, insecticides and disinfectants. Back in 1920-25, there were only two or three liquid floor scrub soaps on the American market. This was because flooring in those days was mostly wood with some linoleum. The chief problem then was to find a floor soap which did not leave an unpleasant odor as this was the main stumbling block in the way of the sale of such products. With this in mind, I believe that we were the first to develop a liquid scrub soap from proper raw materials and free from foreign matter which had caused the after-odors that were so objectionable to maintenance men.

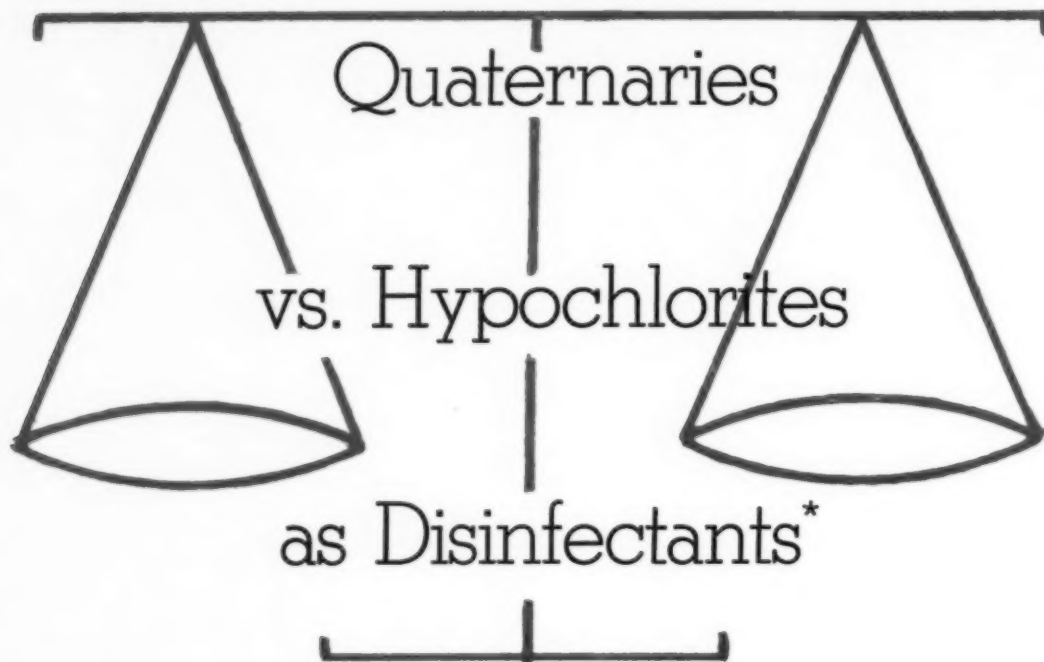
With the wider developments and use of sanitation and maintenance

products in the late twenties, competition brought industry-wide improvement in old products as well as many new ones to market. Developing, testing and marketing these new things was always a stimulating experience. Often it happened, however, that some of our ideas for new products or new applications and properties of old products did not work out. What appeared to be a great idea when it was conceived often proved to be a dud when put into practical application. Many a supposed revolutionary idea in a sanitation chemical of which much promise was expected, fell by the wayside when it was put to practical tests.

Because of uncertainties in the early history of all new products, as well as those involved in the use of all sanitation chemicals, I have always felt that the manufacture of these highly specialized products should be conducted more like a laboratory than an average factory. This means more expensive raw materials and higher costs all along the line, but it also means better quality finished products. It is a policy which we followed from the very beginning and although we have always sold our products at higher prices because they cost more to make, this belief has been vindicated by our sales experiences during the past thirty years.

(Turn to Page 143)





The Hypochlorites

By W. A. Hadfield

Pennsylvania Salt Manufacturing Co.
Philadelphia, Pa.

IN the year 1912 a small concern in Madison, Wisconsin started the preparation and marketing of a liquid hypochlorite preparation. One of the uses visualized for this product was its application to farm dairy utensils as a rinse, after cleaning and, just before use, for the purpose of "sterilizing" this equipment as it was called in those days. As one can readily realize, many problems presented themselves to the manufacturer. Problems that were necessary to solve before obtaining recognition from authorities and others responsible for public-health protection, for this new and startling use of a chemical for the destruction of bacteria upon food handling and processing equipment. These were:

1. The evaluation of hypochlorites as bactericides.
2. The determination of the correct dosage in parts per million for their use as chemical sanitizing agents.
3. Development of bacteriological

methods for estimating the numbers of bacteria present on dairy utensils before and after use of this agent.

4. The effect of small residuals of hypochlorites remaining on dairy utensils upon the numbers of bacteria present in the milk, the flavor of the milk, and the use of the milk for processing such as cheese making.

Bactericidal Evaluation

IN those early days the methods used were commonly spoken of as "Phenol Coefficient Tests". They may have been the Rideal-Walker method (1) or the U. S. Hygienic Laboratory Method (2). However, these methods and others along with the present Food and Drug Administration Method, have not, in recent years, received recognition by the officials having jurisdiction over the old Federal Insecti-

* Presented at 37th Annual Meeting Chemical Specialties Manufacturers Assn., New York, Dec. 5, 1950.

cide Act of 1910 and the present Federal Insecticide, Fungicide and Rodenticide Act of 1947 for the testing of hypochlorites. In fact, a declaration of bactericidal activity expressed as phenol coefficient, has been deleted from the labels of hypochlorite products for over 25 years.

Many workers, among whom are Drs. Max Levine, C. K. Johns and W. L. Mallmann and their co-workers, have developed and studied other methods for the evaluation of the bactericidal properties of hypochlorites. One of the methods developed is the Glass Slide Technique by Dr. C. K. Johns (3). This method offers certain advantages over methods employed generally. It approximates more nearly the conditions under which bacteria have to be destroyed in actual use of hypochlorites. The end-point is that point at which 99.9 per cent of the test organism is killed. Using this method, the author was able to show that the germicidal potency of hypochlorite products is dependent upon both the concentration of available chlorine and pH of the solution, or more specifically upon the amount of hypochlorous acid present, which is the function of the two.

Recently, another procedure known as Weber and Black Method

(4), has been developed and this method uses as the end-point 100% kill of the test organisms *Escherichia coli* and *Staphylococcus aureus* in exposures of 15, 30, 60, 120 and 300 seconds. The authors report that under this procedure a 50 ppm available chlorine solution prepared from an alkaline hypochlorite gave a 100 per cent kill in about 30 seconds. This is within the limit set by the U. S. Public Health Service Code Regulating Eating and Drinking Establishments. The authors state "years of experience with hypochlorite compounds substantiate that this compound, in the minimum concentration (50 ppm), is effective for utensil sanitizing."

Much has been published by the Agricultural Experiment Station workers on the effectiveness of hypochlorites, when used as a sanitizing rinse for farm dairy utensils upon the quality of milk produced. There are too many

such to cite them here. One of these is the report of W. G. Loveless of the Vermont Station (5). In the author's conclusions, he reports that the average quality milk as measured by plate counts and methylene blue reduction tests, was materially improved on 20 Vermont farms when the utensils were rinsed with a hypochlorite solution twice daily just before milking, as compared with milk produced in utensils receiving the usual farm sanitation treatment without the hypochlorite rinse. The usual farm sanitation treatment consisted of washing the farm dairy utensils by the farm housewives in their kitchens and subsequently, scalding, but not always, after washing.

Dr. F. W. Barber of National Dairy Research Laboratories, recently released a report for the Applied Laboratory Methods Committee of the In-

(Turn to Page 147)

marked advantage in bactericidal activity against the thermophilic bacteria, the quaternary ammonium germicides, in proper use concentration, are odorless and non-irritating, and off-flavors are not transmitted to milk or milk products. These use solutions are not toxic to man or animals (12). Their bactericidal activity is not reduced as greatly by milk solids as is the case with hypochlorites (13), and their activity is markedly increased in alkaline solution (14). Indeed, Jensen (15), in evaluating various procedures for sanitizing milking machines, found that the germicidal value of a 200 ppm. quaternary solution was equal in effectiveness to 0.5 per cent lye, while the former was more effective against thermophilic organisms.

It is probably safe to state that the greatest single argument against the use of the quaternary ammonium germicides has been the deleterious effect upon their germicidal activity of some of the common water ions. At a meeting of this group last year, Armbruster (14), of the University of Michigan, gave a comprehensive report on studies made in connection with the National Sanitation Foundation on the addition of different common water ions to sanitizing solutions of quaternary ammonium germicides. This work included the cations, calcium, magnesium, potassium and sodium, while the anions tested were sulfates, nitrates, chlorides, carbonates and normal phosphates. All anions were added as sodium salts. Whereas the sodium and potassium cations exerted no demonstrable effect, calcium and magnesium exerted a definite and appreciable effect by decreasing the bactericidal potency of the quaternary. There were no adverse effects shown by any of the anions. As their studies advanced, they found that the reduction in germicidal activity could be avoided by either the use of higher concentrations of the quaternaries, or by the addition of various alkaline substances. For instance, the addition of sodium carbonate to alkyl dimethyl benzyl ammonium chloride, in a water containing 260 ppm total hardness, increased its sanitizing efficiency in hard water equal to its normal efficiency in

The Quaternaries

By G. R. Goetchius

Rohm & Haas Co.
Philadelphia, Pa.

IT is now well known that chemical agents have largely displaced heat as a method of sanitization, especially on the dairy farm, because of their availability and greater ease of application, in addition to their bactericidal effectiveness. Until recent years, the chlorine-liberating compounds have been used most generally because they are rapid and effective *when applied to clean surfaces*. Besides their inherent disadvantages of instability and corrosiveness to utensils and skin, the chlorine-containing compounds are markedly affected by organic matter. Thus, milk solids rapidly reduce chlorine to an inactive state. As with most germicides, regardless of chemical type, the chlorine compounds exert a certain amount of selectivity toward different bacterial species. They are more effective against the coliform organisms and other gram-negative bacilli than against the gram-positive and thermophilic bacteria.

The problem of thermophilic bacteria in milk has received increased attention during the past few years, because of the increasing use of high temperature, short time pasteurizing units, which allow the survival of greater numbers of the thermophilic micrococci. A vast number of dairy authorities have demonstrated that the organisms surviving pasteurization are principally micrococci, originating both in the milk and on various dairy utensils. Milking machines and utensils are seeded with thermophiles by the milk and, unless cleaned and sanitized properly, support their growth. It is agreed generally that unclean equipment is their principal habitat, and that proper cleaning and sterilizing of equipment are necessary for the production of high quality milk (1-7).

The Gram-positive cocci are particularly susceptible to the lethal action of the quaternary ammonium germicides (8-11). Besides having this

distilled water.

The above findings, which are typical of those which have been found in many other laboratories, afford a direct basis for the formulation of the quaternary ammonium germicides in-to dairy detergent-sanitizers. Although this particular type of quaternary preparation is a rather recent development in the sanitization field, its potentialities were recognized over five years ago by Dubois (16), and it serves as an outstanding example of how to adapt a germicide to meet certain specific needs.

The dairy detergent-sanitizer, as its name implies, is a formulation which provides both for cleaning and sanitization in a single operation. The basic requirements for its formulation are, in addition to containing a quaternary ammonium germicide, a non-ionic detergent for grease emulsification and promotion of free rinsing; an alkaline cleaner or cleaners such as soda ash, sodium metasilicate or trisodium phosphate; and an organic or inorganic sequestering agent to compensate for water hardness.

The laboratory evaluation of the bactericidal effectiveness of detergent-sanitizer formulations presented certain difficulties. The test methods which are in use currently in most laboratories fail to make a realistic approach to this problem. The author feels that the degree of killing of bacteria which are freely suspended in a liquid menstruum, bears but little relationship to the number of bacteria which may be destroyed when contained in a milk film adhering to the inner surfaces of milking machines. For this reason, the "rubberstrip test" was developed (17). Because of its roughness and porosity, the rubber surfaces in milking machine connections afford the most difficult portions to sanitize. The rubberstrip test, then, measures the percentage survival of certain test bacteria which had been imbedded in a milk film and semidried on a strip of rubber, which was exposed to a sanitizing solution. As a control, a similarly prepared rubber strip is exposed only to water, so that in the determination of the bacterial count, the physical wash-off by water will not be a factor.

TABLE I
Rubber Strip Test Results

Formulation No.	<i>E. coli</i>		<i>S. fecalis</i>		<i>P. aeruginosa</i>	
	Surv. No.	% Surv.	Surv. No.	% Surv.	Surv. No.	% Surv.
1	950	2.2	760	3.0	590	0.72
2	840	1.9	640	2.6	150	0.18
5	310	0.70	85	0.34	84	0.10
9	880	2.0	290	1.2	2,600	3.2
55	780	1.8	280	1.1	980	1.2
Control	44,000		25,000		82,000	

By means of the rubber strip test, several different formulations of the same quaternary ammonium germicide were tested for their comparative efficiencies against three varied types of bacteria. The bacteria selected were *Escherichia coli*, *Streptococcus fecalis*, and *Pseudomonas aeruginosa*, and the test preparations were all dissolved, at the 200 ppm quaternary level, in synthetic hard water made according to Quartermaster Corps specifications at 400 ppm CaCO_3 hardness. Results of this test are given in Table I.

It is obvious from these results that formula #5 produces a superior germicidal effect against all three test organisms. On the basis of these results formulas #5, #2 and #9 were selected as representative of good, fair and poor formulations for preliminary trials as detergent-sanitizers for dairy farm utensils. Each preparation was used on a separate milking machine, while a fourth machine was washed in the usual manner with a high quality detergent solution. The latter, just prior to use, was rinsed with a calcium hypochlorite solution at 200 ppm available chlorine.

The effectiveness of each treatment was determined by drawing a liter of sterile buffer solution containing chlorine and quaternary inactivators through each machine immediately before milking. Samples were iced and returned to the laboratory for determination of total plate count and for plate count after laboratory pasteurization.

At the end of two weeks' trial, the data showed all three detergent-sanitizers to be about equal in effectiveness with the cleaner-hypochlorite treatment somewhat inferior. In order

to make a greater differentiation, the severity of conditions was increased by omitting all brushing of the machines. As was expected, the counts from all machines increased but this increase was the smallest where formula #5 had been used.

Formula #5 was, therefore, selected for a rather extensive field trial which was conducted in cooperation with a large dairy company on farm shipping milk to two country receiving stations. At each of these receiving stations, 35 farms were selected which had a record of unsanitary milk production, based on plate count of laboratory pasteurized samples. During the control period, several samples of each of the seventy producers' milk were examined by plate count, and thirty farms from each station were selected from those producing the poorest milk and divided into two groups of fifteen.

Group I farms were asked to sanitize their equipment by the standard procedures currently in use, i.e., by means of a detergent cleaning followed by a hypochlorite rinse. Group II farms were requested to use detergent-sanitizer #5 according to an outlined procedure. For a period of thirteen weeks, samples were collected twice weekly and bacteriologically analyzed as during the control period.

The logarithmic average of the pasteurized counts during both the control and test periods together with the percentage of counts exceeding 5,000 are shown in Table II.

Considering the pasteurized counts as an index of the sanitary condition of the milking machine and utensils, it may be concluded from these data that the cleaner and hypo-

chlorite, as used by the producers, are less effective than quaternary detergent-sanitizer #5. It would appear that the combination material minimizes human fallibility, providing a method whereby a less diligent person can more consistently maintain milking equipment in a clean and sanitary condition.

The water hardness from farms at Station A ranged from 14 to 180 ppm, while those at Station B ranged from 24 to 350 ppm. In each case, the average hardness of water from farms using detergent-sanitizer #5 exceeded that of water from farms using cleaner and hypochlorite. Hardness of water did not appear to affect adversely the quality of a producer's milk as measured by average pasteurized counts. As a matter of fact the producers actually having the harder waters produced a better quality milk.

Whereas this report has been concerned with the application of detergent-sanitizers to the dairy industry, it should be pointed out that their application is not limited in this field. The bulk of the work done so far has been in dairy work, but progress is currently being made with the application of detergent-sanitizers to various other divisions of the food-handling and food-dispensing industries.

It seems needless to point out that the ultimate proof of the merits of any product lies in its ability to perform satisfactorily in the field, but there are still many who place too much emphasis on small-scale laboratory experimentation.

I should like to summarize by reminding you that the period 1900-1950 has witnessed a tremendous development in sanitary science. We now all take for granted municipal water supplies, sewers and sewage treatment

plants, the pasteurization of milk supplies, and, indeed, a vast sanitary supervision over all food supplies. Unquestionably, the contributions of sanitary science during the past fifty years represent a great achievement, but much remains to be done in maintaining the gains in sanitary progress.

I mentioned the sanitation of food supplies. In no instance is any item therein more important than milk. Next to pasteurization, the application of chemical agents has been the greatest advance in this respect. The chlorine-containing compounds were noteworthy in achieving a considerable degree of sanitation on the dairy farm and in milk handling plants. But one of the characteristics of progress is that we are never content with early improvements, but are constantly striving to find something better. The chlorine-containing compounds presented certain disadvantages which have been eliminated, as pointed out in this report, with the application of a newer discovery—the quaternary ammonium germicides.

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New Dow Insecticide

A new insecticide, comparable to parathion but considered less hazardous to humans, was announced recently by Dow Chemical Co., Midland, Mich. The new material, "Metacide," an organic phosphate compound, is a liquid and is applied as an emulsion. It is said to be compatible with most insecticides and fungicides.

Prince Pennsalt Purchaser

Frederick G. Prince, formerly assistant, recently was appointed general purchasing agent for Pennsylvania Salt Manufacturing Co., Philadelphia. He succeeds Norman W. James, who has withdrawn from active service with the company, but who continues as a consultant and advisor on procurement problems.

TABLE II
Field Trial Results

Conditions	Station A		Station B	
	Group I	Group II	Group I	Group II
Log. Average Control Period	815	1,020	1,250	1,240
Log. Average Test Period	661	221	1,040	234
% 5,000 Control Period	17.2	20.0	13.7	18.4
% 5,000 Test Period	11.1	2.4	24.4	1.6

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C.S.M.A. Meets in Chicago

CLARIFICATION of at least some of the problems facing the industry is expected to be accomplished at the 37th midyear meeting of the Chemical Specialties Manufacturers Association, to be held at the Drake Hotel Chicago, April 29-May 1. In addition to the appearance of government officials, who will attempt to provide some clue as to what sanitary chemical specialty manufacturers might expect in the future, there will be discussions on technology, product application, merchandising and legislation at the meeting. The latter items will be taken up in the main at meetings of the five divisions of which the association is composed: Aerosol; Soap, Detergents and Sanitary Chemical Products; Insecticide; Disinfectant and Sanitizers, and Waxes and Floor Finishes.

Association business will be discussed at meetings of the board of governors and various scientific, administrative and legislative committees scheduled for Sunday, April 30, when registration for the convention begins.

The broad outline of the program, tentatively announced early this month by H. W. Hamilton, secretary and managing director of the C.S.M.A., includes five divisional meetings on Monday morning, April 30, followed by a group luncheon and business session. A general discussion session will be held on Monday afternoon at which, as yet unannounced government agency people are expected to discuss various aspects of the emergency mobilization and rearmament program and its ef-

fects on the chemical specialties industry.

The second day of the meeting, May 1, opens with a general session, which has as its keynote, "Military Procurement and Planning as Applied to Our Industries." A feature of the group luncheon on Tuesday is a speaker, whose name was not available at this writing. The concluding session of the meeting on Tuesday afternoon features meetings of the five divisions. There will be four division meetings since the Insecticide and Aerosol groups will meet jointly.

On Tuesday night, the cocktail party and informal dinner, at which there is to be entertainment, will conclude the meeting.

At the first of the two general sessions, Leonard J. Oppenheimer of West Disinfecting Co., Long Island City, N. Y., president of C.S.M.A.,

delivers his president's address on Monday afternoon, April 30. Following this there are to be the reports of the secretary by H. W. Hamilton, and the treasurer, Peter C. Reilly, Jr., of Reilly Tar & Chemical Co., Tuckahoe, N. Y. Latest developments in Washington are to be reviewed at this session.

Melvin Fuld of Fuld Brothers, Inc., Baltimore, is general program chairman for the meeting. John A. Rodda of U. S. Industrial Chemicals, Inc., New York, is acting as vice-chairman of the meeting. They are aided by the program chairmen and chairmen of the various committees of the Association. In addition, James E. Ferris of Niagara Alkali Co., New York is chairman of the entertainment committee and Ira P. MacNair of MacNair-Dorland Co., New York is in charge of arrangements.

Considerable interest and attention at the 37th midyear meeting, the dates for which are the earliest in several years, will be focused on the carnauba wax situation and any developments arising in Washington. Besides meetings of the CSMA's Waxes and Floor Finishes Division, Committee D-21, Wax Polishes and Related Materials, American Society for Testing Materials, is scheduled to meet in Chicago on May 2, and in Racine, Wis., on the following day.

The 38th annual meeting of the Chemical Specialties Manufacturers Association is scheduled to be held Dec. 3 and 4 at the Mayflower Hotel, Washington, D. C.

MELVIN FULD
Program Chairman



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Program for 37th Mid-year Meeting Chemical Specialties Manufacturers' Association, Chicago, April 29-May 1

Monday Morning April 30

Soap, Detergents & Sanitary Chemical Products Division

"Syndets, Present and Future"—Foster D. Snell, Foster D. Snell, Inc. "Photometric Evaluation of Brightening Agents"—Dr. H. Hemmendinger, General Aniline & Film Corp. "Detergency Properties of Systems Containing a Solid Nonionic Detergent"—Dr. H. R. Suter, Wyandotte Chemicals Corp. "Hard Surface Cleaning"—J. C. Harris, Monsanto Chemical Co.

Aerosol Division Program

"Product Design in the Aerosol Industry"—Gerald C. Johnson, Gerald C. Johnson Associates. "Stabilization of Wax Aerosols"—B. J. Eiseman Jr., E. I. du Pont de Nemours & Co. "Rapid Method for Determining Volatile and Non-Volatile Ratios of Aerosol Formulations"—C. Clapp, Continental Filling Corp. "Army Aerosol Program"—R. E. Treichler, Military Planning Section, Department of the Army, Office of Quartermaster General. "Aerosol Defense Committee Report"—H. R. Shepherd, Connecticut Chemical Research Corp. "Status of Aerosol Flammability Test Procedure"—William E. Baulieu, Bridgeport Brass Co. "Scientific Committee Report"—(A) Public Regulations sub-committee. W. E. Graham, Crown Can Co. (B) Safety and Accidents sub-committee. J. F. Brandenburg, Standard Oil Co. Indiana. "Marketing Committee Report"—John H. Mills, Bridgeport Brass Co.

Insecticide Division Program

"Where Are We Going With Housefly Resistance?"—Dr. George C. Decker, Entomologist and Head, Section of Economic Entomology, State Natural History Survey. "Up-to-date Report on the Tolerance Hearings—Food & Drug Administration and Congressional"—John D. Conner. "Symposium on Allethrin"—Moderator: Dr. H. L. Haller, Assistant Chief, Bureau of Entomology & Plant Quarantine, U. S. D. A.

Disinfectant & Sanitizers Division Program

"Disinfectants for Tuberculosis Hygiene"—Dr. C. Richard Smith, The Barlow Sanitarium Association. "Some Aspects of Marketing Quaternaries"—Irving Gaines, Onyx Oil & Chemical

Co. "Sanitary Chemicals in Building Maintenance"—Thomas J. Coull, superintendent, Chicago Board of Trade Building. "The Effects of Atmospheric Humidity on Sterilization of Surfaces"—Dr. Edward Dunklin, The University of Chicago, Department of Medicine.

Waxes & Floor Finishes Division Program

"The Detection of Additives in Vegetable Waxes"—C. J. Marsel, Department of Chemical Engineering, New York University and C. S. Treacy, Mamaroneck Chemical Co., Mamaroneck, N. Y. Presented by C. J. Marsel. "Gymnasium Floor Maintenance"—Earl Brenn, Huntington Laboratories. "Laboratory Examination of Carnauba Wax"—A Panel. Moderator: Bayard S. Johnson, Franklin Research Co. "Terrazzo Sealers"—George Flanagan, Federal Varnish Co. "Simple Methods for Separating Wax Constituents into General Chemical Fractions by Displacement Chromatography"—R. L. Broadhead, Betty Gericke and E. A. Wilder, S. C. Johnson & Son Inc. "Latest Developments in Field of Gloss Measurement"—B. A. Silard, Photo-Volt Co.

Monday Afternoon April 30

General Session Program

"Address of the president"—L. J. Oppenheimer, West Disinfecting Co. "Report of the Secretary"—H. W. Hamilton, Chemical Specialties Manufacturers Association. "Report of the Treasurer"—P. C. Reilly Jr., Reilly Tar & Chemical Co. "The Latest Word from Washington"—Speakers to be announced.

Tuesday Morning May 1

General Session Program

"Military Procurement and Planning as Applied to Our Industries"—Speakers to be announced.

Tuesday Afternoon May 1

Joint Insecticide & Aerosol Program

"Aerosol Evaluation"—R. A. Fulton, R. H. Nelson, A. H. Yeomans, Agricultural Research Administration, U. S. Department Agriculture, Beltsville, Md. Presented by: R. A. Fulton. "Symposium—Materials, Equipment, etc."—

Speakers to be announced. "Symposium—Pressure Propelled Surface Insecticides"—Panel speakers: Dr. L. S. Henderson, U. S. Department Agriculture, Division of Insects Affecting Man and Animals. Other speakers to be announced.

Soap, Detergents & Sanitary Chemical Products Division Program

"Non-Ionic Surface Active Agents in the Dry Cleaning Industry"—Dr. G. E. Barker and H. J. Ranaut, Atlas Powder Co. Presented by Dr. G. E. Barker. "Dispensing of Dishwashing Detergents"—Dr. John L. Wilson, Economics Laboratory, Inc. "The Impact of Synthetic Detergents on the Fat and Oil Market"—J. W. McCutcheon. "Milled Toilet Bars from Synthetic Detergents"—Dr. V. J. Keenan, Atlantic Refining Co.

Disinfectant & Sanitizers Division Program

"Cessation of Bacterial Motility as a Rapid Test for Germicidal Action"—Dr. Leon Buckbinder, Assistant Director, Bureau of Laboratories, City Department of Health, New York, with Peggy Zoretsky. Presented by: Dr. Leon Buckbinder. "Toxicity of Chlorinated Phenols"—V. K. Rowe, Biochemical Research Department, Dow Chemical Company, Midland, Mich. "Nature of Stinks"—E. C. Crocker, Arthur D. Little, Inc., Cambridge, Mass. "What the U. S. Public Health Service Expects of Germicides"—Dr. Luther A. Black, Chief of Mills & Food Sanitation Section, U. S. Public Health Service Environmental Health Center.

Waxes & Floor Finishes Division Program

"Field Testing of Waxed Floors for Slip Characteristics"—A Panel Discussion. Moderator: C. L. Weirich, The C. B. Dolge Co., Westport, Conn. Speakers: R. C. Stratton, The Travelers Insurance Company; S. V. James, Underwriters' Laboratories; S. W. Gurney, Liberty Mutual Insurance Company; P. A. Sigler, Bureau of Standards, Department of Commerce; W. H. Joy, American Telephone & Telegraph Company. "Silicones in Chemical Specialties"—W. J. Dugan, General Electric Co. "Wax Emulsification Based on HLB"—William C. Griffin and R. W. Behrens, Atlas Powder Company. "Problems of Installation and Maintenance of Vinyl Floors"—A. W. Biggs, Goodyear Tire and Rubber Company. "Abril Waxes"—Jack Liss, Korlis, Ltd.

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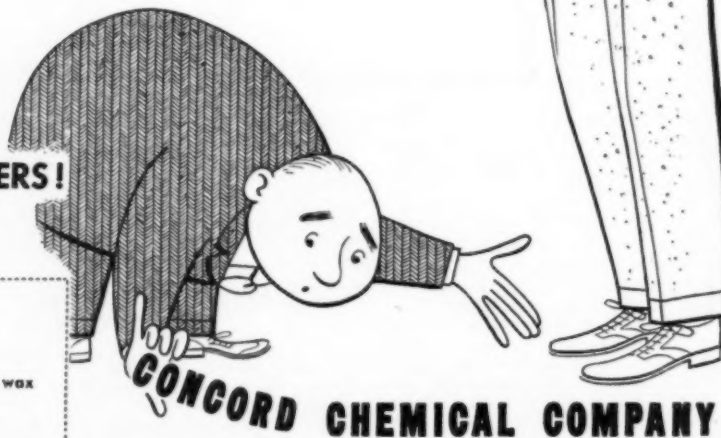
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Water Emulsion Waxes...

Problems in their purchase discussed by representatives of U. N., New York City and the insurance, hospital and telephone fields.

City Wax Buying

By A. M. Maurice Moore

Department of Purchase
New York, N. Y.

THE very nature of water emulsion wax introduces difficulties in the maintenance of a fair and clearly stated standard of quality. In the immediate days ahead of us, wax makers will be confronted with the challenge to operate their plants so as to maintain high product performance standards under business conditions that are sure to become extremely exacting and trying, and increasingly so. Wax manufacturers will face the problem of molding their industry and the consumers of its products into the rearmament program. Production schedules necessary to expand quickly and intensify our military preparation are resulting in the invoking of regulations, directives and orders authorized by the Defense Act of 1950. These are certain to apply to some wax raw materials. While this is happening, every possible effort should be made to see that this industry is spared some of the problems it encountered when controls were introduced during the last war. The question of which products are essential, and the order of their essentiality as security resources is now before our top planners. I do not anticipate any lengthy debate as to whether floor waxes are essential.

A substantial amount of manpower can be conserved by extending the life of the floor coverings now in use. Good quality water emulsion wax may keep them in serviceable condition throughout the long period of curtailed production, which is now at hand.

Then, too, in a time of national peril, the preservation of our high standard of sanitation is of immense

importance to every one of us. Here, again, the great value of good quality water emulsion wax as an aid to household sanitation cannot be overlooked.

Preserving beauty at home is of enormous value to our general morale and to our mental health. It would be impossible to cultivate the recognition of this principle without focusing attention on the value of good quality floor wax as an adjunct in making cheerful places out of those that could otherwise be depressing.

Viewed in the light of the reasons I have just recited, and many others which any one of you could add, water emulsion floor wax will be far from the bottom of the list of essential items.

This does not mean that the distortions in the wax industry will be small. Changes in formula, changes in the kind of packing and shipping containers lie ahead. Just what specific changes in specifications or formula may be necessary will possibly be determined by the course of military operations. However, there is one other significant thing I must point out. This is the need for haste in intensifying the examination of all conceivable possibilities of curtailment or limitation of raw materials. In the light of this, a variety of alternate formulations should be designed for use, in case any of the various possible contingencies actually occur.

The working and performance characteristics of each alternate formula should be measured and evaluated as carefully as possible. This will help in preventing the confusion and the disappointment which buyers or consumers register when their first knowledge of what to expect from an alternate formula comes, following initial use. Buyers welcome the advice of manufacturers who measure carefully

the performance of their products. They appreciate the counsel of those who are forthright and explicit in advising them of what performance to expect upon initial application, and what to expect following extended use of their product or any modification of their standard formulations.

While we are progressing with the security program, it is vital to the industry to be mindful of the need for improvement of the specifications and determine the process to be applied to regular production after the cessation of controls.

I know there will be considerable difference of opinion on this subject, but difference of opinion makes more than a good water emulsion wax.

Both the buyers' and the manufacturers' cost of doing business can be lowered if we work to reduce the multiplicity of varying requirements in the specifications for products wax makers are now called upon to furnish.

We must look ahead to specification revisions that will more simply, more clearly and more precisely set forth what is required of a water emulsion floor wax—revisions that will prescribe a simpler basis upon which wax may be inspected and tested for acceptance—revisions that will establish a more clearly understood basis for evaluating bids—revisions that will permit the use of every ingredient which research and actual performance have demonstrated to improve color, wearing ability, anti-slip properties and water-spot resistance—or to lower cost without sacrifice in quality,—revisions which include such requirements as will permit large as well as small suppliers to compete freely for business,—revisions that will assure proper and suitable quality at economical prices—revisions that have been screened carefully for any conditions

*Presented at 37th Annual Meeting, C.S.M.A., New York, Dec. 5, 1950.



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that would prevent manufacturers from earning a fair return on their investment.☆☆

Waxes for Hospitals

By D. H. Palmer

Hospital Bureau of Standards and Supplies
New York, N. Y.

HOSPITALS are probably faced with a greater variety of floor waxing problems than any other institutional group. As a rule, one institution will have several types of floors requiring different maintenance methods and materials. Furthermore, hospital floors are subject to a wide variety of soil and service conditions. Our hospitals not only need floors with good appearance, but any dressing materials should above all be safe and sanitary.

One of the important advancements made in post-operative patient care has been in the practice of getting patients out of bed and on their feet as quickly after an operation as possible. Medical research has proved that a patient recovers much more rapidly, both mentally and physically when he is put on an ambulatory status at the earliest possible moment. The exertion required in walking and getting about actually hastens the healing of the wound.

The patient who first gets on his feet after an operation after several days in bed is unsteady and has a definite feeling of insecurity in attempting to walk. A poor floor surface, and particularly a hard slippery one, is an added handicap in his efforts to move about.

If you have been in a hospital recently you can recall the amount of rushing about from patients' rooms to operating rooms, to laboratories, etc., that is done by the surgical and nursing staffs. For this group, also, a slippery floor represents a great hazard.

There are still too many accidents to the nursing staff resulting from slippery floors in our hospitals. I realize that most of the manufacturers of waxes and floor treatment products have put a great deal of thought and time into an attempt to improve their products in this respect. Unfortunately, as yet, it appears impossible to make a

wax that gives everything that is desired in non-slip properties without losing something in durability and soil retention.

Many institutions are so aware of the accident problem that they have sacrificed a great deal in the way of floor appearance and maintenance costs in order to have safer floors.

Hospital floors have to withstand the effects of more different kinds of liquids, chemicals and medications than those of other institutions with the possible exception of chemistry laboratories in high schools and colleges.

Probably the most common liquids, other than water, which come in contact with the floor are ether and alcohol, both excellent solvents. Floor coatings in our hospitals should be resistant to such germicides (both aqueous and tincture solutions) as iodine, gentian violet and mercurochrome as well as bichloride of mercury, quaternary ammonium compounds and chlorine solutions. Floor coatings, as well as the floor itself, can be destroyed by mineral oil and glycerine, both of which are used widely in hospitals and frequently come in contact with the floor.

Laboratory floors have to withstand all the above compounds as well as occasional contacts with strong acids and alkalies.

Many hospitals are not satisfied with the water emulsion waxes available. They complain that they spot too easily and are not completely satisfactory for asphalt tile. This probably means that the ingredients of floor dressing materials should be more inert and more durable. Certainly, we need floor coatings that require less man hours to maintain.

Dust Suppression

MANUFACTURERS of floor wax products should be interested (I believe) in a new development for maintaining germ-free air that will create a problem of floor maintenance. I refer to the use of oily or hygroscopic material for use on floors, carpeting and bedding materials in keeping down dust and airborne bacteria.

The Committee on Sanitary Engineering and Environment of the National Research Council indicated in its last public report in 1947 that the suppression of dust by means of application of oily compounds to floors and bedding is the most practical and effective method of reducing airborne bacteria and cross infection. This method is more effective and practical than the use of aerosols or any number of germicidal lamps.

To treat a floor with an oily compound, raises immediately the problem of what effect it will have on the floor dressing as well as the floor itself. Most waxes are readily softened by oily compounds. Such flooring materials as linoleum, asphalt tile, and rubber tile will deteriorate under repeated application of oily floor dressings.

Before a hospital can institute a program of dust suppression, therefore, it will need either

(1) a wax that is not affected by oily substances or

(2) a wax that in itself has the ability to hold dust particles to it, and will be compatible with the floor itself. How we are going to obtain this property and at the same time not increase the amount of floor maintenance required, is something I will have to leave up to the research laboratories of the floor wax manufacturers.

Conductive Floor Maintenance

HOSPITALS have one other floor waxing problem for which no one has come forward with a solution. This is the problem of maintenance of operating room floors. With the adoption of the Recommended Safe Practice for Hospital Operating Rooms by the National Fire Protection Association certain requirements are established for the conductivity of operating room floors. One of the problems that arises immediately with such floors is how to maintain them. If they are waxed, they immediately lose their conductivity. Even if they are not waxed, the use of cleaning compounds may affect the conductivity in a short period. Someone should develop a conductive floor finishing material that will maintain a conductive contact

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with the floor at all times, and in addition have good wearing qualities and an acceptable appearance.

At least two companies have developed liquids for application to certain types of surfaces, which it is claimed eliminate the accumulation of static electricity. If these products are effective and can be combined with a suitable floor wax, we may have a solution to one of our floor maintenance problems.

Conclusion

IN most respects, hospitals require a floor wax that combines the properties needed by all institutional users. The more common of these requirements are resistance to wear and scuffing, high softening point, resistance to a variety of commonly used liquids, and stability at high and low temperatures. The wax should also be easy to apply and easy to remove. With this we would also like to have satisfactory gloss and good overall appearance. Above all, hospitals need a wax that is truly non-slip.

In addition to these characteristics, I have attempted to point out the special requirements to meet the development of oil applications to floors for the suppression of dust. And finally, we think it may be possible for an especially enterprising manufacturer to formulate a floor dressing material that will be sufficiently conductive to drain off any static electricity that may accumulate on objects in the operating room.☆☆

Telephone Co. Waxes

By W. H. Joy

American Telephone & Telegraph Co.
New York

OUR function at A. T. & T. Co., New York is the standardization of building service and maintenance supplies, which include floor wax, for use by the Bell Telephone companies. The actual purchasing is done by the Western Electric Company. The buildings, where the wax is used, number in the thousands and are scattered throughout the country from the Atlantic to the Pa-

cific and from the Gulf states to the Canadian border. Our problem is, accordingly, complicated by the number of different locations which must be satisfied with the wax, the effect of widely varying climatic conditions, the different types of flooring including mainly linoleum but also appreciable amounts of asphalt tile, rubber and wood, the fact that a large percentage of our employees are women who, due to the type of footwear, are more subject to slips and falls than men, the fact that many of our buildings contain business offices where the public enters directly off the street, and finally the possible effect of the wax on telephone equipment.

In their present state of development we have been unable to find one wax which will satisfy all these requirements. We, accordingly, have standardized two waxes, both of the water emulsion type. The first is known as "Regular" wax and is a high carnauba content product designed to give maximum appearance, wear and soil resistance. In the second, which is designated "Special" wax, these features have been sacrificed to some extent to gain additional slip resistance. The use of the latter is recommended for business offices and operating rooms, where slip resistance is of paramount importance, and generally for use on asphalt tile. Climatic conditions, however, enter into the selection. For example, in the Southern states where there is considerable heat and humidity, there is little need for the "special" wax, while in the Denver area, where dry cold conditions predominate, the "special" is used almost exclusively. Recently, we have been doing considerable experimentation with resin wax-free emulsions, and feel that when perfected they will go a long way toward solving the slipping problem.

Both standard waxes are covered by formal specifications. However, since many of the requirements are not subject to numerical evaluation, these specifications are supplemented by approval samples established at the time the contract is awarded, and used as a basis of comparison in the inspection of deliveries. The speci-

fication requirements may be subdivided roughly into two groups: (1) physical and chemical properties and (2) performance characteristics. The first group, which may be fairly well determined in the laboratory, includes total solids, wax content, melting point, alkalinity, viscosity, etc. Due to the detrimental action on telephone equipment, free ammonia is limited to a maximum of one per cent. The second group would include such properties as gloss, spreading, slip resistance, wear resistance, freedom from soiling, water spotting, removability, etc. While some of these can be evaluated in the laboratory, the results do not always jibe with field experience. For example, the wax may spread satisfactorily on a small linoleum panel, but when spread on a large floor area may develop an undue drag on the mop. We recently tested two waxes which give identical gloss meter readings when the same number of drops were applied to a given area on the same type of linoleum. However, when used in the field one of the waxes gave noticeably less gloss than the other. The answer apparently was that this wax spread further due to lower viscosity and surface tension, thus leaving a thinner film, or in the case of porous linoleum tended to penetrate further into the goods leaving less wax on the surface.

In the case of slip resistance, waxes that test identical on our equipment will sometimes show quite different results on the floor. Field experience with the same wax may vary considerably in different locations. In one location the wax may prove perfectly satisfactory, while in another a considerable number of slips and falls may be experienced.

Some of our general observations on slip resistance may be of interest. There are apparently two types, one the resistance to a flat surface, such as the sole of the foot, and the other to a point contact, such as the heel of the shoe as it meets the floor. In our opinion the first evaluates the tackiness of the film, while the second measures the sheer resistance of the film once a slip has started. Both should probably be taken into consid-

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eration in evaluating this characteristic. We have found that slip resistance increases with increasing humidity. However, the presence of actual moisture, as in a freshly waxed floor or when the feet are wet, is definitely conducive to slips and falls. There is also, evidently, a happy medium as to the amount of wax to have on the floor. While two coats will be found to be less slippery than one, excessive wax can produce a lubricating effect where the heel is concerned. Accordingly, paradoxically as it may seem when slip complaints are received, we sometimes recommend an additional coat, and sometimes recommended a damp mopping to remove excess wax. Machine buffing definitely improves slip resistance, particularly on a newly waxed floor, where it seems to help to dissipate the excess moisture.

We know of no adequate method to evaluate wear and soil resistance, except by actual field tests. When a number of waxes are received in connection with contract negotiations, they are first tested in the laboratory which will generally separate a few goats from the sheep. The rest are then put into a limited floor test, selecting some heavy traffic area, such as a corridor leading to a cafeteria, where the waxes are applied to adjacent areas and observed for several days. One of the areas is always the present standard, which serves as a basis of comparison. The survivors from this test are then subjected to actual building use. Generally, two areas representing different climatic conditions are selected where the test wax is used in whole buildings for a period of three to six months. Only after these extensive trials is approval given to a new wax.

Even with all these precautions, the new wax when introduced to the system as a whole is subject to considerable criticism, since the building service employee applying the wax immediately senses a difference. Invariably he considers the new wax inferior to the old, to which he has become accustomed. Incidentally, we issue to the field detailed instructions, called practices, which describe how to prepare the floor, how to apply the wax, and how to maintain it properly. The lat-

ter includes daily damp sweeping which tends to keep it clean and prolong its service life.

The testing of floor waxes as indicated above is a long drawn out and expensive procedure. Purchase flexibility would be facilitated greatly if there were adequate laboratory tests that would reliably evaluate floor performance. Also, if the waxes submitted for our consideration were more nearly interchangeable, our problem would be simplified. As an effort in this direction, we have introduced into our "regular" wax specification a requirement covering composition calling for definite minima of carnauba and shellac. While this may turn out to be just a noble experiment, we are hopeful that this approach may go a long way toward solving our difficulties.☆☆

U. N. Wax Problems

By Patrick Curtin

Maintenance Section, United Nations
Lake Success, New York

WE, the Secretariat of the United Nations, have a unique operation. By that I mean people from all parts of the world, the majority of whom have never walked on waxed floors before, traverse our corridors, conference rooms, etc., daily. Therefore, we have to be extremely careful of the way in which we maintain our buildings.

Some of these people still wear shoes, sandals and footwear from their native countries. We also must take extra precautions for, as you know, we handle all the diplomats from these countries, and must always be aware of their presence as well as that of about 800,000 visitors a year. Therefore, the utmost care must be taken to eliminate as many complaints as possible.

We occupy 654,000 square feet of floor space in our part of the building at Lake Success, 280,000 at Flushing, and 82,000 in the 42nd Street building. The floors in these buildings are covered with asphalt tile, linoleum, "Linotile," "Masterpave" and carpet.

My years of experience in this business have taught me that in order to obtain the best results, you must train your personnel in the fundamentals of good workmanship. In order to accomplish this a tremendous amount of time and labor is required. I have taken the time to teach these people individually on how to prepare properly the floors to be waxed. I find that it pays large dividends to have them thoroughly schooled in their work, inasmuch as it saves time, material and workmanship.

When most concerns hear the price of a product is high, they have a tendency to look for something cheaper. However, I want to point out at this time that it is false economy, or to revert to the old proverb—"What's cheaper is dearer."

By instituting a program like this, your maintenance cost in labor and material is lowered considerably, because a properly trained man can do more work than one who is not. A schedule of the areas to be cleaned is set-up and left unchanged. Each man's work is laid out in advance in order to obtain the most efficient results.

Equipment is a most important factor to achieve good performance. Each man's equipment is inspected regularly and I will not tolerate worn out or dirty tools. For example, mops used to strip floors are used for that purpose alone, and a separate mop is used for applying wax. Therefore, in the event something is wrong with the floor we can easily check the source of the trouble. The reason this plan is used is to insure the safety of the populace of the building.

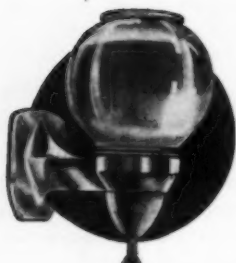
Most people, when stripping a floor, have a tendency to do it in one application, which in my opinion, is wrong. Common sense will tell you that most soaps or detergents used for this purpose contain a certain amount of alkali which is injurious to the floor if not removed.

Floors should always be rinsed and a neutralizer, such as vinegar, used in the rinse water. Another bad habit that the average employee has is in trying to do the job without taking the trouble to change the water frequently.

(Turn to Page 149)

SELL
Moore
AND SELL

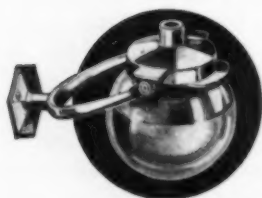
- more soap
- more dispensers



No. 100



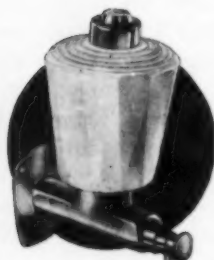
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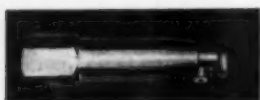
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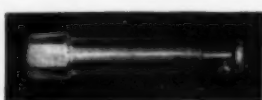
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Auto Cleaners

(From Page 39)

compounds provide a dual action. They work by penetrating and loosening heavily caked grease and dirt which then can be flushed away with a stream of water to leave a clean surface.

Thus, a solution of a nonionic detergent, like "Nonisol 210" (Alrose Chemical Co., Providence, R. I.), in a xylene or similar aromatic compound is suitable for use in cleaning the underparts of motor vehicles. In patented cleaners, (10) an anionic detergent is mixed with ortho-dichlorobenzene to yield the desired multi-purpose products. Other emulsifiers are also useful in preparing these "heavy duty" cleaners. For example, emulsifiable solvent cleaners can be made by mixing one part of "Petromix No. 9" (L. Sonneborn Sons, Inc., New York City) with five to seven parts of kerosene or similar solvent. Sometimes these cleaners are provided as concentrates, to be diluted with kerosene or the like, before being applied to the soiled surface, where they are allowed to act for suitable periods of time before being washed off.

Before a polish can be applied to the body of a car, it is necessary to remove road tar, road oil and similar wash-resistant soil. In discussing tar removers, Small (11) states that they may consist of any of a number of solvents like petroleum naphtha or Stoddard's solvent, coal-tar naphtha, xylene or various petroleum oil fractions. Crowley, (12) however, remarks that ethylene dichloride is an excellent solvent for the road tar which accumulated on the fenders of the car when driving over newly treated roads. This solvent may be used straight or it may be mixed with an equal amount of naphtha to cut the cost without serious loss of solvent properties. Along similar lines is an automobile tar remover consisting of: (13)

	parts
Ethylene dichloride	90
Naphtha	40
Diglycol laurate	5

Glickman (4) also favors the

use of ethylene dichloride and suggests the following formula for making a tar remover:

	gal.
Ethylene dichloride	12.75
Mineral oil, light, technical25

A number of tar removers have been described in the older patent literature. Vallee, (14) for example, suggested the use of amylene dichloride for softening the tar to facilitate its removal. Wylie (15) recommends a mixture of benzene, turpentine, oil of citronella and olive oil for the removal of tar from various surfaces and materials. To remove grease and tar from lacquered surfaces, Myer (16) employed a product made from:

	parts
Spirits of camphor	1
Citronella	1
Kerosene	12
Paraffin	2

(To Be Concluded)

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- 3) Anon.: Pop. Science, Feb. 1948, p. 122
- 4) Glickman, C. L.: Chem. Ind. 46:197, 1940
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- 10) Reynolds, R. L. & Rice, H. M.: U. S. Pat. 2,403,612-13, 1946
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- 12) Crowley, C. A.: "Money Making Formulas," Chicago, Popular Mechanics Press, 1939, pp. 216, 94, 106
- 13) Bennett, H.: "Chemical Formulary", New York, Chemical Publ. Co., Vol. III, p. 331; Vol. IV, p. 454; Vol. VIII, pp. 348,353
- 14) Vallee, R.R.: U. S. Pat. 1,913,647, 1933
- 15) Wylie, J. H.: Brit. Pat. 338,167, 1929
- 16) Meyer, J. W.: U. S. Pat. 1,795,134, 1931

Dr. Guenther Abroad

Dr. Ernest Guenther, vice president and technical director of Fritzsche Brothers, Inc., New York, left by plane for a trip to Mexico and Central America March 28. He plans to return to New York in about six weeks.

Velsicol Moves in New York

The New York office of Velsicol Corp., Chicago, was recently moved from 11 Park Place to 100 E. 42nd.

Wechsler Aids Bond Drive

Ralph Wechsler, treasurer of Nopco Chemical Co., Harrison, N. J., has joined the board of governors of the American Financial and Development Corporation for Israel. The corporation has been established to direct and manage sales for a \$500,000,000 bond issue to be floated in the United States by the Government of Israel.

Warfarin Publicity

Wisconsin Alumni Research Foundation, Madison, has issued another series of publicity releases, reprints of advertisements, etc., relating to warfarin. This compound, formerly known as Compound 42 or WARF-42, was developed by Dr. Paul Link of the University of Wisconsin and the patent rights are held by the foundation. The program is designed to promote warfarin.

Improves Idico Sprayer

The improvement of its insecticide sprayer through the addition of a rest knob on the back of the neck extension and interchangeable nozzles for spray or stream was announced recently by Idico Products Co., New York. The sprayer, which operates on the second stroke and can throw a stream 20 feet or more, is equipped with a one quart steel container with a wide opening, and brass bottom to prevent corrosion.

R. Brooks Brown Dies

R. Brooks Brown of Louisville, Ky., dean of salesmen of Anchor-Hocking Glass Corp., Lancaster, O., died Feb. 21. He had been with the firm since Dec. 7, 1905, having previously been with Sure-Seal Co., later a part of Anchor Cap Corp., which consolidated with Hocking Glass Co. in 1937 to become Anchor-Hocking Glass Corp. Mr. Brown headed the Louisville sales office, a position he has held through the years, turning it over last August to his son.

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The new Vancides are *non-toxic to humans* and other warm-blooded animals.

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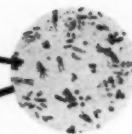
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*....and it takes definitely more than muscle
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Trio EMULSION Paste Wax is the revolutionary paste wax. It Cleans and Polishes In One Operation — giving the floor a tough, lustrous protective finish.

Trio EMULSION Paste Wax is highly recommended for use where a solvent type wax cannot be used.

- It prevents bleeding of colors and pitting of asphalt and rubber tile floors.
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Kochs on Safety Council

August Kochs, chairman of the board of Victor Chemical Works, Chicago, has been re-named a member of the advisor board of the Greater Chicago Safety Council.

Trademarks

(From Page 67)

Filed May 8, 1950 by B. Altman & Co., New York. Claims use since 1915.

Nova—This for liquid cleaner for painted surfaces. Filed Mar. 16, 1948 by Hercatone Products, Stockton, Calif. Claims use since Mar. 10, 1948.

Compound 497—This for insecticides. Filed Jan. 18, 1950 by Julius Hyman & Co., Denver. Claims use since Apr. 28, 1949.

Jet—This for insecticides. Filed May 2, 1950 by Airosol Co., Neodesha, Kans. Claims use since Mar. 11, 1947.

Milfuso—This for insect spray. Filed May 11, 1950 by Milfred Co., Pittsburgh. Claims use since Sept. 10, 1938.

Bufen 30—This for bactericide containing phenylmercuric acetate. Filed May 16, 1950 by Buckman Laboratories, Inc., Memphis. Claims use since Sept. 2, 1949.

Agrimul—This for insecticide emulsifier. Filed May 23, 1950 by Nopec Chemical Co., Harrison, N. J. Claims use since Feb. 15, 1950.

Systox—This for insecticide. Filed May 26, 1950 by Geary Chemical Corp., New York. Claims use since May 10, 1950.

Sanocide—This for parasiticide. Filed by California Spray-Chemical Corp., Richmond, Calif. Claims use since November, 1910.

Mirror Bright—This for protective way coatings for automobiles, etc. Filed May 16, 1949 by Mirror Bright Polish Co., Pasadena, Calif. Claims use since June, 1923.

Cramer—This for liquid dentifrice. Filed Dec. 27, 1949 by Cramer Chemical Co., Gardner, Kans. Claims use since Aug. 10, 1943.

Fullerfoam—This for soapless detergent for fabrics. Filed Feb. 3, 1949 by Fuller Brush Co., Hartford, Conn. Claims use since July 6, 1948.

Brewery Switched

(From Page 123)

People are always willing to pay more for a better product. It is with no desire to boast that I say that we began with this premise back in 1920 and have never changed our course. In fact, the beginning of the broad rise of the entire sanitary chemical industry into an important ad-

junct of modern industrial and institutional sanitation began a quarter-century ago when the old-fashioned shoddy products were replaced on a wide front with scientifically designed products formulated to do a job efficiently and safely. The old make-shift maintenance materials were soon replaced and their makers who refused to join the new trend, soon passed out of the picture.

Advances Bring Problems

AS the importance of beauty in business buildings and service institutions was recognized more widely, new types of floorings, walls and furnishings took their place in the scheme of things. These all brought new problems in maintenance. While wood floors, for example, will always be with us, it became increasingly important to produce cleaning and protective compounds which could be used on the newer materials such as rubber tile, asphalt tile, and other floor coverings which would wear rapidly and lose their beauty through use of the older maintenance methods and products. The old-style floor cleaning crystals, even with the advent of TSP, soon were outmoded by limitations on their use. The milder, safer cleaners, formulated especially to clean the newer floorings took over.

Some of the early additions to our line which were featured in the second catalog which we put out, included floor oils and floor dressings. In those days, floor oil was a big seller. Wood floors were the rule and they were oiled to keep them in shape. That it was a poor way to finish a floor, most everybody knew, but the practice was widespread. Gymnasium floors presented a difficult problem which was recognized even then. Floor oil made a gym floor much too slippery. Then it became common practice to treat gym floors with a mixture of linseed oil and turpentine. From this, there developed the modern type floor sealer. Possibly, we were not the first to market such a product, but nevertheless about twenty years ago we came up independently with a new gym floor sealer. This item

quickly became the largest single seller in our line and has continued to hold this position down through the years.

From the early days of liquid soaps, insecticides and disinfectants, the sanitary supply field has grown into a large and very complicated one. In contrast to the hit-or-miss of early days, at present we have all sorts of testing machines and methods for the great diversity of products manufactured. But after the smart boys in the laboratory upstairs find out all the answers and put their stamp of approval on a product, the post-graduate testing course really begins. The product goes to the customer. Then and only then, do we really know how good the product is, be it scrub soap, floor seal, or insect killer. No matter how much research, no matter how carefully it is made, no matter what the tests in the laboratory, no test has yet been conceived which can replace the real acid test of actual use.

Thirty years of building the Huntington Laboratories from an abandoned brewery into a soap factory and thence into a modern sanitary chemical manufacturing laboratory have brought many things home to me rather strongly. Starting from scratch, we built up a successful free enterprise. We carried through some pretty rough sledding in the early days, but we worked hard and did not need a planned economy or a welfare state to bail us out of trouble. We went through the crash of '29 and the bank closings of '32 when we had to wire our salesmen to get home and stay there until further notice. But, we came through under our own power, as did thousands of other businesses, a tribute to the spirit and character of the American free enterprise system. Had we been undermined by the termites of a socialistic planned economy, there are serious doubts that we could have made it, for the welfare state is in fact a political disease which by its very paternalism progressively weakens its own economy. But in a free economy, we pulled through stronger than ever, and still look with enthusiasm on new and bigger plans for the future. To us, the first thirty years have become merely the beginning.

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- The Neutral Cleaner
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- Paste Wax
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- Disinfectants & Deodorants
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"BIG X" SWEEP MOP

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Soap Trademarks

(From Page 47)

that each trademark case where the issue involved is solely that of similarity of marks must, in the final analysis, be determined largely on the basis of opinion as to such similarity and not by comparison with other cases involving other words."

"Lifebuoy" Cases

FOR over half a century Lever Brothers Company, New York, has marketed "Lifebuoy" soap with a success that all too frequently suggests to unscrupulous competitors a ride on the running board of another's well equipped car. During the eight years ending in 1936, over \$10,000,000 was spent by Lever in the advertising of "Lifebuoy" and its adjunct "B.O." This nation wide publicity was manifested in a paragraph appearing in a metropolitan newspaper to which the Federal Court referred in appraising the value of the good will represented by these two trademarks.

"Speaking of the campaign to keep fox hunting alive, a prominent metropolitan editor asserts that he has a great idea for a poster to be used by a nationally famous soap. It will show a fox, safe and grinning in an open field, while the hounds and riders gallop by. The title of the advertisement will be, 'No B.O.'"

The litigation in which this reference was made arose when the producer of a liquid deodorant sought to register N-O-B-I-O as a trademark for its product. This application was denied by the court with the comment, "although the term 'Nobio' and 'B.O.' do not look exactly alike, the term 'Nobio' will be pronounced as though it were spelled 'No B. O.'" * * * (it) was intended that the term "Nobio" should be understood as meaning, "No B.O." The goods possess the same descriptive properties; the term "Nobio" and "B.O." are confusingly similar."

A few years later came another attack on the "Lifebuoy" and "B.O." trademarks in an application for the

registration of "Lifeguard" for use on toothbrushes.

The proprietor of "Lifebuoy" asserted that well over a hundred million dollars worth of "Lifebuoy" products had been sold from 1895 to 1941 and that during those years over \$20,000,000 had been spent in advertising the soap and \$1,000,000 in advertising the shaving cream with a consequent sale of over 25,000,000 tubes of the cream.

"We are of opinion that the goods of the applicant," concluded the court in denying the registration of "Lifeguard," "are goods of the same descriptive properties as tooth brushes and massage elements for the teeth on which the applicant uses the trademark 'Lifeguard' and that the marks are confusingly similar."

The features of this confusion that occur in the misuse of trade names are described by a Federal Court in a decision relating to the trademark "Woodbury" for soaps. These were produced originally by two relatives of that name, both assuming themselves to be specialists in their particular industry. The court stated: "I suppose anybody can call himself a famous author or dermatologist, although the greater portion of the time he has been engaged in advertising. It is likewise natural, perhaps, to hold in high regard and keep before the public a cousin who has become famous as a soap seller, but if the result is that the public confuses the cousins and confuses the dermatologists, there would seem to be a necessity for a plain statement of who is who, so that there need be no confusion whatever in the purchaser's mind of the source of the soap offered him."

References

- National Mineral Co. v. Norwich Pharmacal Co., 183 Fed. 2d 119; 78 U.S.P.Q. 332
15 U.S.C.A. 1052
West Disinfecting Co. v. Lan-o-sheen Co., 163 Fed. 2d 566
Malone v. Horowitz, 51 Fed. 2d 414
United Drug Co. v. Mercirex Co., 182 Fed. 2d 222; 77 U.S.P.Q. 319
Oakite Products, Inc. v. H. Kirk White & Co., 107 Fed. 2d 590
Lever Brothers Co. v. Nobio Products, 103 Fed. 2d 917
Lactona, Inc. v. Lever Brothers Co., 144 Fed. 2d 891
Andrew Jergens Co. v. Bonded Products Co., 13 Fed. 2d 417

Marks Defined

(From Page 47)

been abandoned (2) the mark has become a common or descriptive name of an article or substance patented or otherwise, (3) the registration was fraudulently obtained, (4) the mark is assigned and is being improperly used.

Another major benefit of U. S. registration is that upon issuance of the registration all local users and newcomers are put on notice (termed "constructive notice") that the registered mark is no longer available for use in interstate commerce. Once it is issued there can be but one lawful user of a trade-mark in interstate or foreign commerce except as to prior concurrent U. S. registration. One authority has stated correctly, "A registrant need no longer feel insecure in his protection if he fails to expand his business throughout the country. . . . The burden is shifted to the newcomer to prove that he adopted the mark without knowledge of the registrant's use and that he used it before the registration was granted." As the statute puts it, the certificate of registration is "prima facie evidence of the validity of the registration, registrant's ownership of the mark, and of registrant's exclusive right to use the mark in commerce in connection with the goods specified."

D&O Offices Expand

The acquisition of another floor, bringing to four the number now occupied by the firm at 180 Varick St., New York, was announced recently by Dodge & Olcott, Inc. By taking over the 14th floor of the headquarters building, which it is occupying in addition to the 15th, 16th and 17th floors, D&O has added 20,000 square feet of floor space to its working quarters. Part of the newly acquired space is being used for a large control laboratory. In addition, new perfumers' laboratories and the accounting department are situated on the 14th floor. The D&O control laboratories continue at the Bayonne plant.

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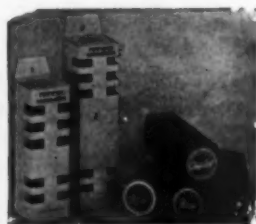
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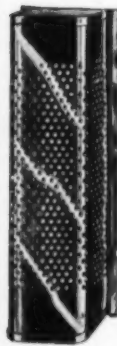
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Hypochlorites

(From Page 125)

ternational Association of Milk and Food Sanitarians entitled "Quaternary Ammonium Compounds in the Dairy Industry" (6). In this report, the author summarizes the reports of work done by a number of dairy companies and their laboratories in cooperation with manufacturers of quaternary ammonium compounds and detergent-sanitizers on the field testing of these products in comparison with the standard cleaning procedure followed by chlorine sanitization. He states "it is of interest to note in conclusion that in practically all instances the results of the farm field trials showed a good reduction in pasteurized counts both with the detergent-sanitizer and the standard cleaning procedure followed by chlorine sanitization." The new has not improved upon the old.

In an article entitled "Cleaning and Bactericidal Values of Detergent Sanitizers" (7) Dr. P. R. Elliker and his co-workers of the Oregon Agricultural Experiment Station, conclude that "under the farm water conditions encountered (water hardness ranging from three to 15 grains per gallon), both the standard conventional cleaner and hypochlorite sanitizer and the detergent-sanitizer yielded satisfactory results when reasonable care was taken to follow instructions for their use".

Thus hypochlorites were shown to possess the ability to destroy the undesirable organisms apt to be present on milk handling equipment both from laboratory tests, and in practical results on farms.

Sanitizing Solution Tests

HYPOCHLORITE sanitizing solutions are tested easily and readily by the dairy plant operator, milk sanitarian and public health inspector. The available chlorine content of the use solutions is determined by field test sets using either the o-toluidine or the potassium iodide-thiosulfate reactions. The test is easy to perform, and the results positive so that the user of the hypochlorite sanitizing solution readily

knows the concentration of available chlorine in parts per million. Many manufacturers of hypochlorite preparations and chemical and apparatus supply companies are marketing chlorine tests sets which are readily available.

The necessity of testing solutions in use is apparent, since the operator should have a ready means of knowing if the solution has certain properties.

Compatibility

THE bactericidal properties of hypochlorite products, liquid and powder, in the concentrations recommended for sanitizing are not affected by water hardness. In fact, the buffering action of hard water salts may decrease the pH value of the solution, thus slightly increasing the bacteria destroying properties (8). Chemically, the hypochlorite sanitizing solutions are compatible with alkalies and anionic wetting agents used in dairy cleansers, consequently residues of these left on dairy utensils do not affect the bactericidal properties when used as a sanitizing rinse.

Hypochlorites Residues

NATURALLY the effect on milk or foods of hypochlorite residues on the equipment or utensils was one of the first questions that had to be answered. Health authorities and agricultural experiment stations had to be satisfied in that respect.

When a farm dairy utensil, such as a pail or can, is rinsed with a 200 ppm available chlorine solution just before use, a film of the solution remains on the rinsed surface. The actual volume of the remaining rinse solution is dependent upon the carefulness of the individual in inverting the utensil to drain. Studies made determining the amount of residue remaining in milk bottles, in milk pails and in milk cans immediately after receiving a chlorine rinse, show that the total amount of available chlorine remaining on the surfaces range from one to two ppm for milk bottles to 10 to 25 ppm for milk pails and cans. After filling these containers with milk, no free available chlorine can be detected in the milk, using the potassium iodide-starch reaction. Nor is there any reduc-

tion in the total bacteria count of the milk using the standard plate method. The hypochlorite residue remaining on dairy utensils is decomposed immediately when the utensil is used for containing milk. The decomposition products are chlorides and oxygen.

In the early days of the use of these solutions, it was thought that the so-called tallowy, medicinal, oxidized and cardboard flavors of milk were due to the use of this chemical. However, after a thorough investigation of these flavors, it has been shown that other factors are responsible. The presence of copper in milk is one possible cause, since the copper may act as a catalyst in the mechanism of the oxidation of the fats. Hypochlorites, when used according to the manufacturers' directions do not contribute to the presence of off-flavors in milk and other dairy products.

Hypochlorites as Sanitizing Agents

THE early work was proved finally by many laboratory workers and accepted generally. The United States Public Health Service, through its Milk Ordinance and Code and Ordinance and Code Regulating Eating and Drinking Establishments has recognized and approved the use of chlorine bactericides as one of the approved methods for sanitizing farm dairy utensils, milk plant equipment and restaurant dishes and glassware. Included in this, is the recommendation for the use of an approved bactericidal solution on the udders and teats of milking cows at the time of milking and the rinsing of milkers' hands.

The following quotation is taken from the 1939 Milk Ordinance and Code:—"All multi-use containers, equipment and other utensils used in the handling, storage or transportation of milk or milk products shall, between each usage, be subjected to an approved bactericidal process with steam, hot water, chlorine or hot air". The ordinance states that there are several chlorine bactericides which may be used by industry in complying with this ordinance. These consist generally of calcium hypochlorite, sodium hypochlorite or certain chloramine solutions. The calcium or sodium hypo-



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chlorite solution, used as a bactericidal rinse on dairy farms and at milk plants, must be discarded when the strength is below 50 ppm available chlorine.

This recognition by the United States Public Health Service has been followed by many states and cities not operating under this ordinance, approving the use of chlorine bactericides as sanitizing agents for food handling and processing equipment.

The milk ordinance recommended by the Public Health Service is now in effect in 13 states, as well as in 360 counties and 1,464 municipalities located in 39 states. It has been adopted as a regulation by 34 states and territories (9).

Cost

THE cost to the dairy farmer and milk plant operator of hypochlorite sanitizing solutions is the lowest of any effective treatment known. A solution containing 200 ppm available chlorine, prepared from a calcium hypochlorite product, costs $\frac{1}{4}$ of a cent per gallon. The average dairy farmer will use four gallons a day at a total cost of one cent per day for sanitizing his dairy utensils and wiping cows' udders and teats.

The cost of these solutions used by the dairy plant operator depends upon the concentration of the solution and the method of application. The flow method of sanitizing assembled equipment consists of flowing thru the equipment a solution containing 100 ppm, and the amount used depends upon the capacity of the equipment. A gallon of a 100 ppm solution costs $\frac{1}{8}$ of a cent. The spray method is used for the application of a 200 ppm solution to large surfaces such as coolers, holding tanks and tank cars and trucks. The amount is small because a small volume, such as a gallon, covers a large surface at a low cost.

Summary

Hypochlorite sanitizing solutions are:

1. Efficient bactericides for sanitizing all cleaned food handling and processing equipment.
2. Easily tested by the farmer, dairy plant operator and public health official.
3. Unaffected bactericidally by hard water salts and the presence of alkali and ani-

onic cleanser residues remaining on equipment.

4. Decomposed by milk and dairy products when a sanitized utensil is used for handling products.
5. Of low cost to the user.
6. Widely accepted as sanitizing agents for all food processing and handling equipment.

It is apt to be the habit of most of us to forget the background and merits of things we have long been familiar with. After taking them for granted for many years our fancy is intrigued easily by a new idea. Hence the need at this time of reminding you that the great merit and extremely low cost in using hypochlorite compounds for sanitizing dairy and food equipment is still a fact that is as emphatic and fresh today as it was when the idea was first promoted. Hypochlorites today are still a powerful bulwark in many fields of sanitation.

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Wax Problems

(From Page 139)

You cannot do a good job with dirty water or mop.

When applying wax I find that the mop should be wrung out thoroughly, applied and let dry. Several thin coats cover more evenly, and there is no excess wax or streaking. My men are instructed to keep cleaning their wax mops as they go along. Any wax that drips might be the cause of streaks if care is not taken.

In maintaining a floor that has already been waxed, we use a mild soap to remove the excess dirt that might be embedded in the wax. Some people add wax to the water which, in my opinion, is not proper. The amount of

wax that is absorbed is negligible. If more wax is needed on the floor, it would be preferable to give it another thin coat. By doing this it will retain its body.

I have tried waxes of different solid content, and find that the higher per cent solids are more practicable for durability and require less care than the lower solid content which, as you know, is softer wax, and scuffs easily.

The United Nations does not have any specifications for wax emulsion product, therefore, I make my own decisions on the physical performance of the various waxes we test. We have approached this with an open mind, and when the various tests were made, have insisted that the manufacturer be present and instruct our employees as to their method of applying the same.

I am usually present when these demonstrations are made in order that I may watch the procedure and try to determine their suitability. In a competitive field such as wax, you can ascertain the best product by the process of elimination. Our reason for permitting the vendor to come in and instruct our people in the use of their product is that he knows the location where the wax is applied and when we make our periodic checks, the evidence is there for him to defend himself against any biased choice.

Wax is a word that is abused by many people. By that I mean in the event of a slip, or fall, the first blame is placed on the wax that was used. I speak from experience when I point out the unfairness of such an accusation, for the simple reason that there are many contributing factors.

Let me repeat my earlier statement about education of personnel becoming a prime factor in determining problems of this kind. If, at any time, a person falls on our premises, my staff is alerted to determine its cause. For example, type of footwear, liquid spilled on the floor and also the condition of the flooring, that is, smoothness, torn edges, etc.

Most people in this field try to get the most for their money, and by so doing do not take into consideration



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the consequences involved. Sweeping compound can be purchased at various price ranges, and if we are not aware of the compound content, it can be hazardous. Compound comes in various mixtures: sand, oil and pulverized. Compounds of sand and oil tend to be hazardous. The pulverized type leaves fine particles on the floor which are not picked up by a broom. In my opinion, the best type of compound to use has a wax base, preferably the same wax as you use in your operation.

Another one of the many problems is the variation of temperature and atmospheric conditions, both of which affect finished surfaces. At times, floor surfaces will be faster, and other times more or less sticky. These conditions must be taken into consideration and dealt with accordingly.

In conclusion, it must be remembered that a floor surface should be cleaned before wax is applied. Choice of a wax for floor surfaces should be determined by the durability of the wax and its anti-skid qualities, also the ease with which it can be maintained. ☆ ☆

Insurance Co. Wax

By Roy Varner

Penn Mutual Life Insurance Co.
Philadelphia, Pa.

OUR problem of wax purchases at Penn Mutual is confined to our own Home Office Building, since in most cases internal maintenance of our owned real estate is the responsibility of the tenant. We do not maintain a chemical laboratory but instead, test maintenance materials by actual use. During the war our floors suffered from the lack of maintenance, and unfortunately, the use of inferior maintenance materials. Soon after the war, we decided to conduct tests of water emulsion waxes, and chose the company's purchasing department as the test area. We divided the floor area into nine equal sections, each of which received approximately equal wear from departmental and public traffic. We waxed each of the nine sections with a different manufacturer's product according to the individual manu-

facturer's instructions. After three months of testing and by the process of elimination, we finally awarded the contract for the product we use today.

The employee reaction to the brighter and cleaner floors, which resulted from the use of the new material, was excellent; and its ability to protect became more obvious as we continued its use. We did, however, receive persistent complaints about slipping on some floors. One of the building's tenants (an insurance brokerage firm) became so annoyed over an accident, which resulted from a fall, that they demanded that all wax be removed from their floors. After several warm, but friendly, conversations, we succeeded in persuading them to withdraw their demand; and we convinced our officials that the falls were the result of carelessness rather than the application of a new wax product. All went well until one day the purchasing agent slipped on a newly waxed floor and landed on the broad of his back; and the same day another officer slipped on a newly waxed floor and almost fell. At this point it became obvious that some floors require special waxes to do the maintenance job required, and be as slow as the untreated floors (rubber, linoleum).

We found that such products are manufactured at a slightly higher cost, which we are very glad to pay. We therefore judge a wax product by its ease of application; toughness, appearance and cost—and most important—by its slip-resistance.

Our wax purchases other than floor maintenance materials, include furniture polishes, leather polishes and wax treatments for woodwork. We have had no particular problem in the purchase of these materials, but have found the application of said wax products to be very helpful in our maintenance program. ☆ ☆

(To be concluded)

On MCA Committees

Among those appointed recently by the board of directors of the Manufacturing Chemists' Association, New York, to serve on various committees of the organization are: George

H. Baker, Wyandotte Chemicals Corp., Wyandotte, Mich., and V. N. Wilson, Pennsylvania Salt Manufacturing Co., Philadelphia.

Essential Oils

(From Page 90)

producer of West Indian lemongrass oil is now Guatemala² which country supplies on the average about 200,000 pounds of oil per year. Production is on the increase, with from 300,000 to 350,000 pounds being expected for 1951. The history of Guatemala's lemongrass oil industry closely resembles that of citronella (see above). The oil is produced by a number of large-scale growers and distillers, and sold exclusively through the Oficina Controladora de Aceites Esenciales in Guatemala City.

Another important supplier of West Indian lemongrass oil is the island of Haiti, which exports up to 25 metric tons of oil per year. Experiments at growing lemongrass in Honduras have been given up as unsuccessful. The same holds true of Florida, where wages are much too high to produce the oil economically. Limited quantities of lemongrass oil are obtained in Brazil and in the northern part of Argentina, but these are not sufficient to satisfy even the domestic market.

Production of lemongrass oil in the Western Hemisphere at best covers only part of the requirements of the United States. Moreover, American buyers find European competition exceedingly keen, which situation has resulted in a continuous price struggle, at the expense of the consumer.

The limited quantities of lemongrass oil supplied by Madagascar (Nossi-Bé), the Comoro Islands, the Belgian Congo, and other parts of Africa are readily absorbed by Europe's essential oil industry. In French Indo-China about 20 metric tons were produced annually before World War II, and shipped largely to France. Nothing is known here of the present picture in that country.

(Part III to follow next month)

² "The Essential Oils", Vol. IV, pg. 44, published by D. Van Nostrand Co., New York, 1950.



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New Piatt & Smillie V.P.'s

The election as vice-presidents of Piatt & Smillie Chemicals, Inc., St. Louis, of Robert L. Connell and Roy

liquid detergent and a similarly named antiseptic rug shampoo. The step marked the company's shift in distribution methods from selling direct



ROBERT L. CONNELL



ROY W. HOLLIDAY

W. Holliday, was announced recently by W. B. Smillie, president. Both men have been with the firm since 1946. Mr. Connell is in charge of eastern operations, and Mr. Holliday in charge of western. Both men were previously regional sales managers, and their advancement is part of a major expansion program, which began in 1949 with the introduction to the sanitary supply jobbing trade of "First" antiseptic

to the market to selling through established channels of distribution in the institutional and industrial fields.

Mr. Connell is making his headquarters in Philadelphia and Mr. Holliday is located in San Francisco where he has moved from Kansas City. He is directing the activities of all distributor programs west of the Mississippi. A number of distributors are being appointed in the New York area.

Acquires Rochester Firm

Rochester Can Co., Rochester, N. Y., recently was acquired by a group headed by Julius LaRaus, Westport, Conn. Jacob P. Bertram, former head of the company that manufactures the "Iron Horse" line of cans, pails, tubs, etc., plans to retire.

Reverses Bostwick Ruling

The Federal Trade Commission recently reversed a trial examiner's ruling closing the case against Bostwick Laboratories, Inc., Bridgeport, Conn., and remanded the case to the trial examiner for further proceedings. Bostwick had been cited by the F.T.C. on charges of misrepresentation in the sale of four of its insecticides. More recently Frank Hier, Trial Examiner

of the Commission filed an initial decision providing for the closing without prejudice of the case. The examiner said that the president of Bostwick had filed an affidavit showing that the alleged misrepresentations have been or will be discontinued or qualified. It was this decision that has been reversed by the Commission in the latest development of the case.

Boyle-Midway Meeting

Top sales, advertising and promotional personnel of Boyle-Midway, Inc., New York, attended a three-day meeting held in Chicago during the recent National Canners Assn. convention there. Advertising plans were discussed, along with details of promotional efforts, merchandising and cus-

tomers service. Presiding over the roundup of divisional executives was A. E. Baggis, national sales manager, assisted by Warren Tingdale, vice-president for sales and advertising.

Refuse Clorox Plant Permit

Clorox Chemical Company, Oakland, Calif. was recently refused a building permit for the construction of a one story building in Kansas City, Mo. According to the city engineer, the permit was refused because no plans were made for a treatment plant for the processing of sulphate residues, which would otherwise have been emptied into the city sewage system.

Clarkson to ARA Position

Dr. M. R. Clarkson, formerly chief of the Division of Inspection and Quarantine, Bureau of Animal Industry, U.S.D.A., has been appointed to succeed the late Dr. S. A. Rohwer as Special Assistant for Defense Activities in the Agricultural Research Administration, the U. S. Department of Agriculture has announced. The appointment became effective March 26. This was understood to be a permanent appointment, superseding previous temporary arrangements.

AMA Lists DDT Precautions

The Committee on Pesticides of the Council on Pharmacy and Chemistry of the American Medical Association recently reported that DDT, while essentially a poisonous material, can be used with a wide margin of safety if employed wisely. The committee pointed out that the poisonous effect of DDT on living organisms decreases with the complexity of the organism. Thus, insects are destroyed by the chemical while the higher types of animals, including humans, are "not likely" to be injured.

The committee warned that farmers should be careful when applying DDT around food or fodder crops and that it should not be used directly on dairy cattle or animals being prepared for slaughter, since there is danger of the chemical accumulating in milk and tissue of treated animals.

Other precautions were: DDT

should not be stored in the food cupboard or medicine chests when there is likelihood of contamination of food or mistaken use; plants and aquariums should be covered while spraying; use of oil solutions on household pets should be avoided; DDT powder should be used only where it cannot be licked off and the use of oil solutions around open fires should be avoided.

Emulsol Names Hukill

Hukill Chemical Corp., 2533 Broadway Ave., Cleveland, was appointed recently by Emulsol Corp., Chicago, as its representative in the central and southern Michigan areas and Ohio on the technical service and sales of surface active agents for the food, pharmaceutical and industrial fields.

New Pennsalt Department

The formation of an Industrial Chemicals Department, a new unit combining the former Heavy Chemicals and Special Chemicals Departments was announced recently by Pennsylvania Salt Manufacturing Co., Philadelphia. Albert H. Clem, formerly assistant to the vice-president in charge of sales, is in charge of the new department.

Insecticide Standards

The sponsorship of insecticide reference standards has been undertaken by the Section on Insecticides of the American Association of Economic Entomologists, in cooperation with various members of the insecticide industry. Standards are intended chiefly for bioassays of insecticides. They are also suitable for use as standards for chemical assays. It is felt that these standards will be useful in collaborative insecticide research studies. The following A.A.E.E. reference standards are now available: technical grade DDT; methoxychlor, technical grade; lindane; toxaphene; tetraethyl pyrophosphate, 40 per cent; parathion, technical grade; and chlordane, technical grade. Standards cost \$1.00 each. Wisconsin Alumni Research Foundation, Madison, is the distributing agency.

Pollak Bobrick Aide

The appointment of James E. Pollak as assistant to A. L. Bobrick,



JAMES E. POLLAK

president of Bobrick Manufacturing Corp., Los Angeles soap dispenser makers, was announced recently by Mr. Bobrick. Mr. Pollak, a graduate of Cornell University, was formerly with Southwest Steel Rolling Mills, where he was manager of construction materials.

At the same time the resignation of Gordon S. Bodek as sales and advertising manager was announced. He is joining Pfaltz Brothers, Chicago meat and food purveyors. Mr. Bodek had been with Bobrick since 1947, when he joined the sales department, being named sales and advertising manager the following year. He served in the U. S. Navy as a pilot during World War II, and is a graduate of the University of Pennsylvania.

Mr. Pollak, in addition to his other duties, will handle all matters pertaining to customer relations for the firm and will attend all trade and technical conventions. He served as a captain in the Ordnance Department of the U. S. Army during World War II. From 1927 until 1946 he was associated with Pollak Steel Co., Cincinnati.

USDA Men to Testify

Representatives of the U. S. Department of Agriculture scheduled to testify at the hearings of the House (Delaney) Committee on Chemicals in Food Products, resuming April 12, include Dr. E. L. Griffin ("Federal Insecticide, Fungicide and Rodenticide

Act"); Dr. Harry Goreslin ("Chemicals utilized in washing egg shell and poultry"); George L. Pritchard ("Use of chemical emulsifiers in bakery products"); Dr. George Holm ("Chemicals used in sterilizing milk containers and washing butter"); Dr. Fred C. Bishopp ("Role of pesticides in the production of food and feed"). Other representatives of U.S.D.A. will also testify.

New Distributing Station

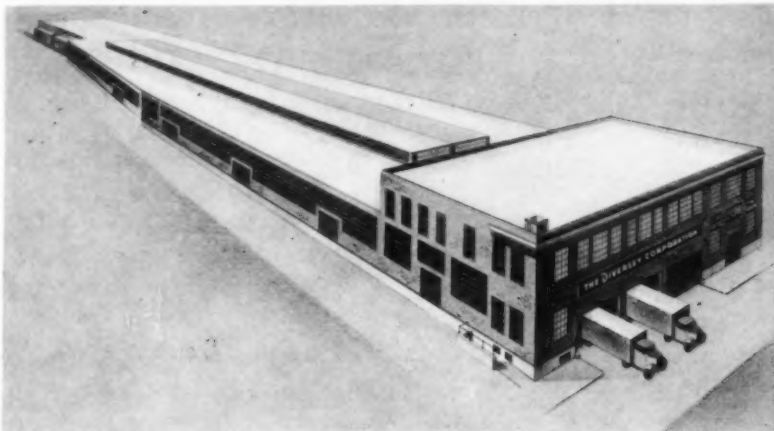
Stanley Home Products, Inc., Westfield, Mass., has announced that they have opened a new distributing station at 4607 McRee Avenue, St. Louis. The company, which manufactures brushes, mops, cleaning chemicals, and other personal household items, stated that this would be the fourteenth distributing station in the United States.

The station will service nearly 1000 Stanley dealers in Missouri, Illinois, Iowa, and Arkansas and will be under the management of Nick Servia, who formerly served as manager of the Dallas distributing station.

CSMA Appoints Committees

Announcement of the make-up of its general and divisional committees was made recently by the Chemical Specialties Manufacturers Association, New York. Chairmen of the CSMA general committees are: Executive committee, C. L. Weirich, C. B. Dolge Co., Westport, Conn.; Legislative committee, G. S. McInerney, Boyle-Midway, Inc., New York; Toxicity committee, Clyde W. Kearns, University of Illinois, Urbana; Program committee, Melvin Fuld, Fuld Brothers, Inc., Baltimore; Membership committee, John Powell, Powell Magazines, Inc.; general co-chairman eastern division, David W. Lynch, Prentiss Drug & Chemical Co., Chicago, general co-chairman western division; Arrangements committee, Ira P. MacNair, MacNair-Dorland Co., New York; Entertainment committee, James E. Ferris, Niagara Alkali Co., New York; Greetings committee, David W. Lynch; Publicity committee, Frank J. Reilly, Soap & Sanitary Chemicals, New York; Associate members committee, J. B. Magnus, Magnus, Mabey & Reynard, Inc., New York.

New Diversey Newark, N.J., Plant



A 10-year lease has been taken on building above at 400 Frelinghuysen Ave.

THE establishment of manufacturing, warehousing and laboratory facilities in Newark, N. J., for its eastern division was announced recently by Diversey Corp., Chicago. Diversey has taken a 10 year lease on a steel frame and brick building, formerly occupied by a steel company, at 400 Frelinghuysen Ave., Newark, N. J. The building will provide Diversey's eastern division, formerly located in New York City, with a new sales office headquarters and manufacturing facilities of its own for the first time. The step is the latest move in decentralizing production, a trend which has been going on for more than a year, according to H. W. Kochs, chairman of the corporation.

Eric C. Foote, Jr., formerly manager of the Diversey plant at Port Credit, Ont., is serving in a similar capacity at the Newark plant.

New Diversey plants began operations in 1950 in South Gate, Calif., for western customers and in Port Credit, Ont., for supply of customers of Diversey Corp., Canada, Ltd., a subsidiary company. Diversey also operates two plants in Chicago and one in Macon, Ga., making a total of six, including the new eastern division plant. Eventually the firm will have another plant for the south and southwest.

In addition to chemicals for cleaning and sanitation, Diversey pro-

duces and sells industrial insecticides, refined clays for decolorizing and deodorizing animal and mineral oils, cleansers used in preparing metal surfaces for finishing and a special line of cleaners and disinfectants for institutional sanitation and maintenance.

Texas Tests Quaternaries

Research is under way at the Texas Agricultural Experiment Station, College Station, Tex., to determine the effectiveness of several quaternary ammonium compounds in the presence of water found in various parts of Texas. A progress report on the project explains that an important point in the use of any disinfectant is its reaction after being diluted to use strength. Thus the type of diluting water is highly significant in evaluating results obtained with the disinfectant.

Results to date, the report states, indicate that water of a very low mineral content will inhibit the action of quaternaries. The extent to which any particular mineral substance acts as an inhibitor has, however, not yet been determined, because chemical analyses had not been completed when the report was made public in the station's latest review of its activities.

The report notes that use of quaternary ammonium compounds on dairy utensils is forbidden by the Texas

state department of health. Quaternaries have the property of remaining stable in the presence of organic matter, it is pointed out, so that they can be used as preservatives. The ban on their use in Texas, it is stated, is due to the possibility that this will invite fraud.

Wax Substitute Developed

Forbex Corp., New York, announced recently the development of a new substitute and extender for carnauba wax. The new product, known as "Forbex Wax No. 44," is a synthetic wax produced by the catalytic hydrogenation of vegetable oils and other chemicals to give it properties similar to those of prime number 1 carnauba wax. A pure vegetable derivative, claimed to be free of foreign matter, it can be made harder or softer as desired. Complete specifications are available.

To Alter Deodorant Claims

Seeman Brothers, Inc., and Airkem, Inc., New York, distributors of the household and industrial deodorants "Air-Wick" and "Airkem," respectively, agreed recently to adhere to a stipulation signed with the Federal Trade Commission that they would stop certain representations concerning these products.

Seeman Brothers agreed to stop claiming that "Air-Wick" eliminates all unpleasant odors or that it clears or freshens the air otherwise than according to its seeming effect.

Airkem has agreed to discontinue claims that its product eliminates odor problems; that it does not mask odors; that it restores some of the characteristics of outdoor air; or that it freshens the air otherwise according to its seeming effect.

The stipulation also provides for discontinuance of representations that the products contain pure chlorophyll, as distinguished from commercial chlorophyll; that the action of chlorophyll in the products is similar to the action of chlorophyll in nature; or that the content of commercial chlorophyll as an active ingredient in the product provides a chief effect in their action.

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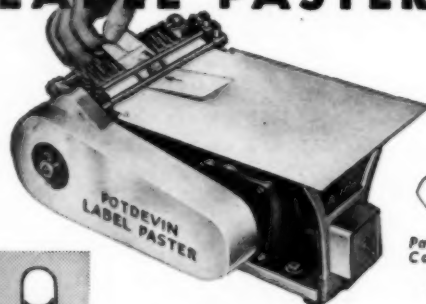
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Mosquito Control Assn. Meets

PROPOSED federal legislation making certain drastic changes in regulations affecting insecticides and other economic poisons was opposed in a resolution adopted by the American Mosquito Control Association at its annual convention in Chicago March 5 to 8.

"Insect control," the resolution points out, "is vital to protection of the health and welfare of the people and certain national legislation is being considered that may greatly affect the availability of pesticides for combating disease carrying insects and destroyers of food and fiber." It was urged, therefore, that full consideration be given the great good done through the use of insecticides and that no step be taken which "will interfere with the development, production and safe use of pesticides so necessary to the defense effort."

Another resolution cited the great need for DDT for use against insect pests of crops and livestock and for utilization in malaria infested lands where a United Nations agency is battling mosquitoes. Because of this vital need, the association urged federal authorities concerned with allocation of chemicals and containers required for manufacture and distribution of insecticides "to see that adequate supplies are made available."

That DDT figures largely in mosquito control measures was quite evident in the numerous reports submitted at the convention by entomologists and abatement district authorities. Mosquito control problems in army and navy establishments from Guam to Goose Bay, Labrador, were among topics discussed at the Chicago convention. Armed service speakers emphasized that they are acting on the principle that "chemicals are no substitute for sanitation." Also considered was the progress of mosquito abatement work done by civilian agencies.

Results of mosquito control work done by the World Health Or-

ganization of the United Nations were reviewed by Dr. L. L. Williams, chief of the U. N.'s medical division for economic and social affairs. Several small



Dr. H. L. Haller (above), whose appointment was announced last month as Assistant Chief of the Bureau of Entomology and Plant Quarantine, U.S.D.A., had been special assistant to the Chief of the Bureau since 1947. He was assistant leader of the Bureau's Division of Insecticide Investigations from 1937 until 1947.

cities brought accounts of how they organized to control both flies and mosquitoes on a community wide basis. In this connection it was suggested that, because of these community drives, professional pest control operators might find it of advantage to enroll in and get acquainted with the work and services of the Mosquito Control Association.

In a discussion of "Insecticide Hazards—Facts and Fallacies," Dr. F. C. Bishopp, assistant chief, Bureau of Entomology and Plant Quarantine, U. S. D. A., recommended that the association participate in a vigorous educational program to offset misinformation regarding use of chemicals for pest control and to establish their soundness to the public.

The early fear that DDT "would be the downfall of the public" has been disposed of, he declared, by the demonstrations of the actual benefits this popular compound has brought to society. Other things, like salt and nutmegs, are also poisonous,

if taken in excess, he remarked.

Findings from the Food and Drug Administration hearings on insecticides can not be expected before "late next summer," Dr. Bishopp stated. He suggested, also, that the association submit to the Delaney committee of the House of Representatives testimony as to the need for insecticides in the field of mosquito control.

Asking "Is there need for more legislation?" Dr. Bishopp declared that laws already in existence are sufficient to care properly for most needs. More effective control of custom applicators of insecticides from the air is, however, needed, he said, but this, he thought, could best be handled through state statutes. In the interest of safety, label laws should be enacted in states not now having them.

He referred also to the current shortage of insecticide components and emphasized the importance of careful use of available supplies, with due attention to quantities used, timing of application and methods of use. Attention should also be given, he suggested, to possibilities for controlling mosquitoes by means other than insecticides.

In the election of officers for 1951, a unanimous vote was cast for the following slate: President — Dr. Don M. Rees, professor of zoology, Univ. of Utah, Salt Lake City; vice-president—Dr. Cecil R. Twinn, Canadian Dept. of Agriculture, Ottawa; treasurer—R. E. Dorer, state director of malaria control, Norfolk, Va.; executive secretary—Thos. D. Mulhern, state dept. of public health, Fresno, Calif.

Manufacturers who exhibited supplies and equipment for mosquito control work included the following: Velsicol Corp., Chicago; Chemical Insecticide Corp., New York; H. D. Hudson Manufacturing Co., Chicago; Fog, Inc., Chicago, representing Todd Shipbuilding Corp.; Lawrence Aero-Mist Corp., Greenfield, Mass.; Kenny Machinery Corp., Indianapolis, Ind., manufacturers' representatives; B. & G. Co., Philadelphia; Haberman Industries, Hastings, Nebr.



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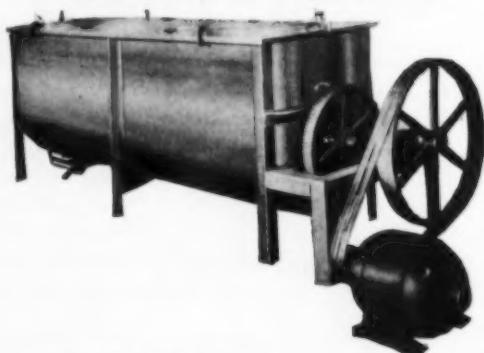
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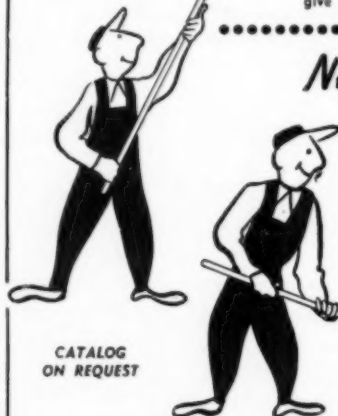
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View Carnauba Supply At NPA Conference

CARNAUBA wax production and world supplies, and the potentialities of substitutes were the chief topics of discussion at an informal conference of floor wax and polish manufacturers, and wax importers held under the auspices of the National Production Authority in Washington on March 28. L. N. Markwood of NPA, Department of Commerce, presided. Twenty floor wax manufacturers and wax importers attended. Possibilities of expanding the output of mineral lignin waxes, sugar cane wax, Douglas fir wax and other substitutes were discussed with a view to urging government action to encourage production of substitutes, particularly those of domestic origin.

Suggestion that the government aid in expanding production of synthetic waxes and those of mineral origin was advanced by Joseph Green, president of Oil Specialties & Refining Co., Brooklyn, who pointed out the possibilities of low-cost lignite waxes which are available in large supply in California. He mentioned that these waxes are being mined and produced on a pilot plant scale on the west coast at present and that they offer a satisfactory substitute for carnauba. He also pointed out, as did Melvin Fuld, president of Fuld Brothers, Inc., Baltimore, that if carnauba wax were one-third of its present price, its use would be four times as great as at present.

Fred J. Wall of The Simoniz Company, Trenton, N. J., stated that at present prices, carnauba wax, already greatly reduced in use in floor waxes and other polishes, eventually would be too high-priced for use for this purpose. He also confirmed the opinion that lower-cost carnauba would expand its consumption widely. Based on his recent observations in Brazil, he stated that production this year will increase inasmuch as producers are going much further back into the jungle in their collection efforts because of the higher prices.

Over recent years, nothing has

been done by producers in the way of an organized effort to produce more carnauba wax in Brazil, according to Robert Ruston of S. C. Johnson & Son, Racine, Wis. He stated that a project to expand output through plantations would require another ten years before the new yield of wax would be commercially available. He pointed out that sugar cane wax which shows interesting possibilities as a carnauba substitute, is still in small production, and although recent output has been increased materially, another two years will pass before the tonnage will be great enough to be a market factor.

Bayard Johnson of the Franklin Research Co., Philadelphia, stated that the high price of carnauba has brought a steady decline in the percentage used in floor waxes and a resultant increase in substitute materials which has already eliminated carnauba completely in some types of products, notably certain paste and solvent wax polishes. This eventually could bring a large surplus of carnauba on world markets if extended to all wax products, he said.

Estimates placed the present output of carnauba in Brazil at 10,000 to 11,000 metric tons of which the United States takes 80 per cent. Joseph Green estimated the output of I.G. and other synthetic waxes in Europe at about 3,000 tons per year, which tonnage he stated might be expanded greatly and augmented by extending production in the United States. Another estimate placed the average carnauba content of water emulsion floor waxes today at 3 per cent or less, which is in fact a quarter of the total solids in the average wax emulsion.

At the conclusion of the meeting, it was suggested by Chairman Markwood that the manufacturers present their suggestions for increasing the output of carnauba substitutes in writing to NPA. He emphasized that the main job of NPA was to take such steps as would encourage output

of all vital materials, particularly those of importance to the rearmament program, with the minimum of interference to the civilian economy. He also acknowledged the request of those present for the formation of an NPA industry advisory committee for floor waxes and polishes. (The industry already has an OPS advisory committee which met for the first time on March 28.)

OPS Wax Committee Meets

The Vegetable Wax Industry Advisory Committee of the Office of Price Stabilization held its first meeting in Washington on March 28. The price and supply of carnauba wax in relation to prices for finished floor waxes and other polishes comprised the main topics of discussion. Floor wax manufacturers pointed out that carnauba had more than doubled in price and that it is impossible to use this wax and keep down prices for finished products. They maintained that carnauba prices are rigged in Brazil by holding down production and holding back stocks of wax.

The new committee which is composed of wax importers as well as manufacturers of floor waxes, shoe polishes and other finished products, includes the following members: Bayard S. Johnson of Franklin Research Co., Philadelphia; Robert Ruston of S. C. Johnson & Son Co., Racine, Wis.; Donald M. King of Masury-Young Co., Boston; Al Candy, Jr., of Candy & Co., Chicago; Herman E. Reinhardt, Jr. of Boyle-Midway, Inc., New York; Melvin Fuld of Fuld Brothers, Inc., Baltimore; C. L. Weirich of C. B. Dolge Co., Westport, Conn.; Fred J. Wall of the Simoniz Co., Trenton, N. J.; M. J. Flanagan of Enterprise Paint Mfg. Co., Chicago; Joseph Green of Oil Specialties & Refining Co., Brooklyn; A. S. Yohalen of Best Foods, Inc., New York; Jack L. DeLyra of Wessel-Duval & Co., New York; G. S. Hamilton of Innis-Speiden & Co., New York; J. E. Godoy of W. R. Grace & Co., New York; R. E. Sievert of Frank B. Ross Co., Jersey City; William Diehl of William Diehl & Co., New York.

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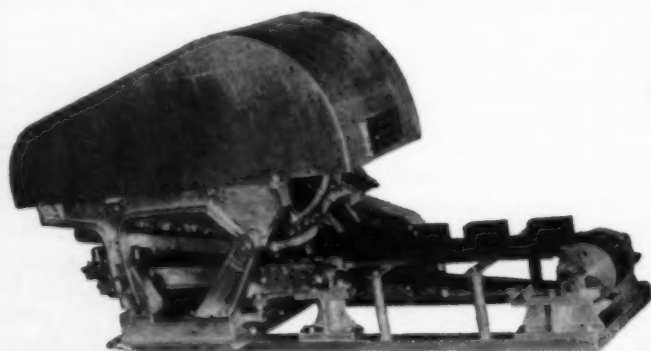
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New NPA Committees

Household and Industrial Sanitation Chemicals Industry Advisory Committee of the National Production Authority is in process of being formed in Washington and will hold its first meeting about May 15. This committee will comprise representatives of manufacturers of disinfectants and sanitizers, and detergent, soap and cleaning specialties. Announcement of membership of this committee is expected about May 1.

A separate industry advisory committee embracing manufacturers of all aerosol products and household insecticides is at present reported under consideration by NPA.

At an informal conference of a few leading aerosol and sanitary chemical specialty manufacturers, H. W. Hamilton, secretary of the Chemical Specialties Manufacturers Association, and John D. Conner, CSMA counsel, with Charles C. Concannon, L. N. Markwood, and W. R. Koster of NPA on March 29 in Washington, preliminary discussions regarding industry advisory committee were undertaken.

Ask 20% DDT Quota

Producers of DDT recommended to the National Production Authority March 21 that the order requiring makers to accept up to 25 per cent of monthly capacity in defense rated orders be modified. Manufacturers favored a 20 per cent quota for the second quarter to enable them to supply more DDT for essential civilian needs. DDT makers based their recommendation on the fact that during the first three months of 1951 military requirements fell short of the 25 per cent figure and that no manufacturer received defense rated orders reaching the full 25 per cent. In addition, it was pointed out, a 20 per cent quota would provide enough DDT to meet second quarter defense requirements of 4,000,000 pounds. The industry spokesmen also requested that DDT manufacturers be permitted to reject DO orders placed after 15 days before the beginning of the month in which delivery is sought, but suggested May 1 as the effective date to

permit acceptance of orders placed in April. At present, makers of the insecticide are permitted no "lead time" on DO orders.

Eases Copper for Dispensers

Copper and copper brass alloy may be used in the production of soap dispensers for hospitals only under the provision of amendment #1 to the Copper and Copper Base Alloy Order M-12, N.P.A. announced recently.

Driskill Elected to Board

Walter S. Driskill, vice-president and sales manager for McCormick & Co., Baltimore, was elected to the board of directors at the annual stockholders meeting, it was recently announced by Charles P. McCormick, company president and chairman of the board. Mr. Driskill joined the company after resigning as president and coach of the Baltimore Colts professional football team.

American Can Co. is 50

A MERICAN CAN CO., New York, celebrated its 50th anniversary recently with a dinner at the Waldorf-Astoria Hotel, New York, attended by 1,400 employees. Simultaneous birthday dinners, participated in by 34,000 employees, were held in other cities in the United States, Canada and Hawaii. The highlight of the New York affair was the presentation of a citation made by the National Canners Association to the company for "distinguished service to the progress of the canning industry and to a higher standard of living for the American public."

Charles H. Black, president of the can company accepted the award

from Carlos Campbell, executive secretary of NCA, in a ceremony that was heard by Canco employees in the three countries over one of the most extensive long distance telephone hook-ups in industrial history.

Another feature of the New York dinner was the inauguration of the company's new long service emblem program with the presentation of a gold lapel insignia to George Wilhelm, Canco's New York area employee with the longest service record. He has been with the firm 49 years. D. W. Figgis, chairman of the board made the presentation. W. C. Stolk, executive vice-president served as master of ceremonies for the program.

D. W. Figgis (right), chairman of the board and Canco veteran of 49 years, pins 50-year service emblem on lapel of George Wilhelm, member of sales organization.



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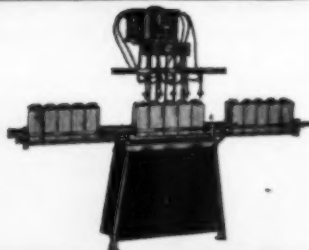
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NSSA Meeting June 2-6

An up-to-the-minute report on the availability of supplies and equipment will feature the discussion portion of the program of the 28th annual convention and trade show of the National Sanitary Supply Association, being held at the Municipal Auditorium, Cleveland, Sunday through Wednesday, June 3-6. Over 125 manufacturers have already indicated they will exhibit at the trade show. Because of shortages of some materials and the increasing number of allocations of scarce metals and chemicals, the merchandise exhibit at this year's convention is expected to attract more attention and interest than usual, according to Leo J. Kelly, executive vice-president of the N.S.S.A.

Headquarters for the convention will be the Hollenden Hotel, Superior Avenue and E. Sixth St., approximately two blocks from the Auditorium. The only function of the meeting not to be staged at the Auditorium, the banquet, scheduled for Tuesday night, June 5, will be held at the Carter Hotel, on Bolivar Road, just in from Ninth Street. The exhibits will be set up on the Arena floor of the Auditorium and the luncheons and discussion sessions following them will be held on the second floor of the Auditorium.

Again this year, "Mr. X" will give away \$100 bills, as at the 1950 meeting. Another highlight of the 28th annual convention will be the election of officers and directors for the coming year.

Thomas A. Burke, Mayor of Cleveland has issued a proclamation designating the week of June 3 as "Sanitation Week" in Cleveland.

Joseph Joins Camp

Dr. S. Brian Joseph has joined the staff of Camp Chemical Co., Brooklyn, N. Y., as chief chemist. Born in New York, Dr. Joseph attended Columbia University and received his Ph.D. from Brooklyn Polytechnical Institute. He has been actively engaged in production and development work in the field of sanitary chemicals in recent years. Before coming to Camp Chemical, Dr. Joseph was with Britest

Inc., Bronx, N. Y., and was development chemist with Penetone Company, Tenafly, N. J.

COMING MEETINGS

American Association of Textile Chemists and Colorists (annual meeting) Hotel Statler, New York, Oct. 17-19.

American Hospital Assn., St. Louis, Sept. 17-20.

American Institute of Laundering, Hotel Stevens, Chicago, Oct. 19-20-21.

American Oil Chemists Society (annual meeting) Hotel Roosevelt, New Orleans, May 1-3.

AASGP (annual meeting) Waldorf Astoria Hotel, New York, Jan. 22-23, 1952.

ASTM, Committee D-21, Wax Polishes and Related Materials, May 2, Chicago; May 3, Racine, Wis.

American Water Works Assn., Miami, Fla., Apr. 29-May 4.

Catholic Hospital Assn., Philadelphia, June 2.

Chemical Specialties Manufacturers Assn., Mid-year meeting, Hotel Drake, Chicago, Apr. 29-May 1.

Drug, Chemical & Allied Trades Section, New York Board of Trade (annual meeting) Shawnee-on-Delaware, Pa., Sept. 20-22.

Manufacturing Chemists' Assn. (joint spring outing with Synthetic Organic Chemical Manufacturers Assn., Greenbrier Hotel, White Sulphur Springs, W. Va., June 14-16.

Linen Supply Assn. of America, Hollywood Beach Hotel, Hollywood, Fla., Apr. 15-18.

Middle Atlantic Hotel Exposition, Auditorium, Atlantic City, N. J., Sept. 5-7.

National Hotel Show, Grand Central Palace, New York, Nov. 5-9.

National Restaurant Assn. (convention and exposition) Navy Pier, Chicago, May 7-11.

National Sanitary Supply Assn. (annual meeting and trade show) Municipal Auditorium, Cleveland, June 3-4-5-6.

New England Hotel & Restaurant Show, Hotel Statler, Boston, Apr. 25-26-27.

National Pest Control Assn., (annual convention) Hotel Statler, Boston, Oct. 29-30-31.

National Institute of Rug Cleaners, Hotel Statler, Boston, Jan. 19-20-21, 1952.

Packaging Institute (annual forum) Hotel Commodore, New York, Oct. 22-24.

Society of Cosmetic Chemists, Hotel Biltmore, New York, May 18.

Synthetic Organic Chemical Manufacturers Assn., (joint spring outing with MCA), Greenbrier Hotel, White Sulphur Springs, W. Va., June 14-16.

Toilet Goods Association (annual meeting), Hotel Waldorf-Astoria, New York, May 15-17.

Two to Johnson Board

Edward H. Wadewitz, president of Western Printing and Lithographing Co., Racine, Wis., and Fred M. Farwell, executive vice-president of S. C. Johnson & Son, Inc., Racine, were elected directors of Johnson at a recent meeting of the firm's board.

Other members of the Johnson board include H. F. Johnson, president; H. F. Croft, Brantford, Canada; John J. Lewis, Chicago; Otto L. Kowalke, Madison, Wis., and Grover C. Weyland, Racine.

Perm-Aseptic in Bankruptcy

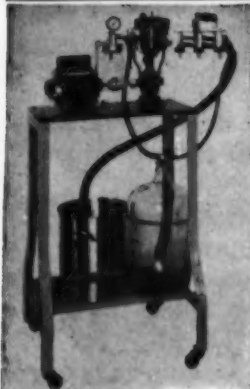
A hearing on the bankruptcy petition of Perm-Aseptic Corp., Mamaroneck, N. Y., is to be held by the United States District Court for the Southern District of New York, at the United States Court House, Foley Square, New York, room 1904, May 1, at 2:30 p.m. The petition of the company, which manufactures antiseptics, for a reorganization under Chapter X of the Bankruptcy Act has been approved as properly filed and an order has been issued appointing George A. Brenner as trustee under bond of \$5000. Mr. Brenner has been authorized to operate the business of Perm-Aseptic until further order of the court.

Packaging Conference Dates

C. E. Sherwood, industrial engineer with S. C. Johnson & Son, Inc., Racine, Wis., is to discuss "Developing Flexibility in Your Packaging Operations" at the three day National Packaging Conference sponsored by the American Management Association and held in Atlantic City, N. J., April 17-19. The conference is being held in conjunction with the 20th National Packaging Exposition in the Atlantic City Auditorium. The outlook for packaging materials and the extent to which substitutions will have to be made in the coming months was to be forecast at a panel session at the conference. Participating in the panel discussion of "Packaging Management Problems Today" is John A. Warren, packaging consultant for American Home Products Corp., New York, chairman.

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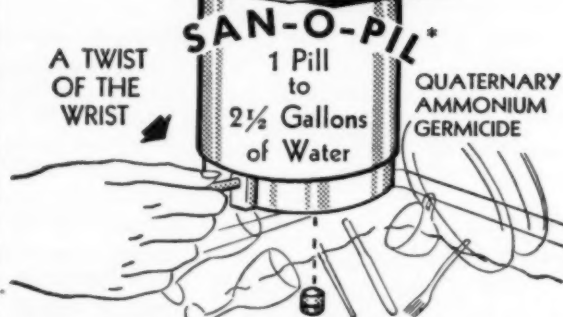
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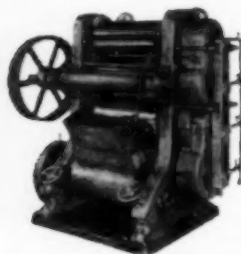
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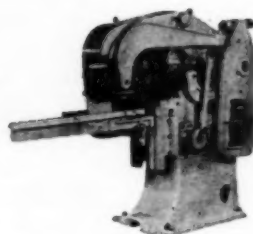


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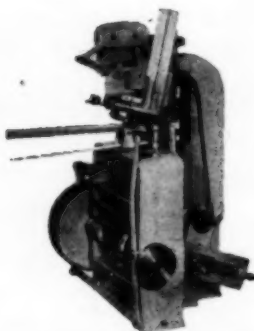


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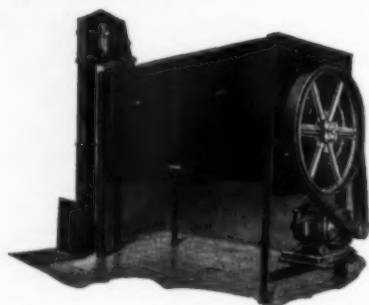
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At the same time it was announced that Pinckney L. Frost will take over the position of import manager, formerly held by Mr. Hamilton. Mr. Frost, who has been with Innis, Speiden since 1921, is a member of the Salesmen's Association of the American Chemical Industry, Inc.; the Chemists' Club of New York; the Technical Association of the Pulp and Paper Industry and the American Chemical Society.

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Every effort is made to keep this index free of errors, but no responsibility is assumed for any omissions.

TALE ENDS

A SOAP sale to finance camp vacations for needy boys is being staged by the Y.M.C.A. in Seattle. Swift has supplied over 60,000 bars of soap at cost for the purpose and 350 boys will do the sales job. On each fifty-cent sale, the boy salesman gets a commission of 20c, a neat 40 per cent. By mid-June when camp time arrives, some of the boys will probably buy cars instead of going to camp.

A big boom has hit Tokyo's 1,400 public bathhouses. The Japs who run them have brought a landslide of business with offers of free tea, free mineral water, free baby-sitters,—and free soap. A new three-story Turkish bath is now being rushed to completion to cash in on the cleanliness wave. And in addition to inducements now offered by other bathhouses, this new one will give perfume baths, and will include a cabaret, a hotel, and beauties in bathing suits to give free massages. Woo! Woo! New York, Chicago, and points West,—what are we waiting for?

Improper dishwashing detergents and methods will close 25% of the restaurants in Pittsburgh, Pa., within 30 days if they don't mend their ways. Sanitary inspections recently classed a quarter of Pittsburgh restaurants as "C" which is unsatisfactory, says the "Digest" of the Association of American Soap & Glycerine Producers. A three-sink system is required, the first for washing in soap or detergent, second for clear rinse, and the third for a sanitizing compound rinse or in water over 170 deg. F. Home-made soap is specifically verboten! Unsanitary!

Science Clubs of America which conducts an annual "science talent search," recently made an award to a young lady chemistry student at a high school near Chicago by the name of Phyllis Kadoyama for a paper on "Experimentation and Saponification." It told of her experiences in making soap. And the report goes, "she is now making tests to produce a soap which is translucent." Hold everything, Phyllis! You're on the wrong track. Translucent soap is easy. The trick today is to make it not-translucent and without titanium dioxide.

Soap has been added to the ration list in Hungary. This step has been made necessary, according to rumors filtering out from behind the Iron Curtain, because "the enemy" is stirring up trouble by encouraging hoarding and speculation. Last month, "the enemy" caused trouble by encouraging hoarding of sugar and flour. That Ol' Debbil, "the enemy" is sure a handy fellow to have round these days in Hungary.

W. Newell Wyatt, bon vivant and

sales demon of Westvaco Chemical, widely known in and around the chemical and soap trades as "Shorty," broke into print recently via the N. Y. Daily News when an inquiring reporter asked him: "Is a man likely to be more successful if he has a demanding wife?" Displaying the courage of a lion, he went on record in the public prints with an unequivocal "no!"

Charley Lichtenberg sent us a card from Waikiki Beach, Honolulu, which says: "Aloha, from the land of sunshine, flowers, hula-hulas, and beautiful scenery mixed with a lot of rain." Personally, in viewing hula-hulas, we feel that rain, sun, or scenery are strictly unimportant. Charley is prez of Chicago Sanitary Products.

This summer, the State of Kentucky is going to build a factory to produce its own soap and chewing tobacco for

inmates of prisons and hospitals. Later on, to save the state money, says Deputy Welfare Commissioner John P. Jarvis, this same factory will make detergents and disinfectants. Today, Kentucky spends \$30,000 per year for soaps. Over \$60,000 worth of equipment has been purchased for the new plant. All of which reminds us that about ten years ago, there was a big stink down Frankfort way about the state buying soap at very fancy prices. An investigation showed everybody to be scrupulously honest. And now they build a new soap and eating tobacco factory.

The morale of our Marines in Korea has been seriously threatened, gentle reader, by a shortage of mustache wax. It seems that Marines with handlebar mustaches tried collodion and axle grease, but mustaches still drooped. Then, somebody tried saddle soap and it worked. Marine morale was saved! Well, all this may be just ducky, but if we were a Marine commander and any of our men showed up in handlebar mustaches, we would have them taken out at sunrise and shot in the pants with a red-hot safety razor!

Safe!



LET the other guy make the errors if he wants to. But, as far as current advertising is concerned, play it safe. Don't let them forget you when the present hubbub is over because you "don't need" advertising today. In the field of soaps and detergents, floor waxes and polishes, insecticides, sanitizers, and many other chemical specialties, playing it safe means regular advertising in

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3. **Fruit Fly**—Very small with large, wide head and large, iridescent greenish eyes. Legs and body are hairy and wings are variable in shape. Blueberries, cherries, and apples are damaged by various species.



4. **Silverfish**—small, wingless, with 3 long bristles at end of body and very long, many-segmented antennae. Body usually covered with small, silvery scales. They love dark crevices and are usually seen at night.



5. **Angoumois Grain Moth**—Important stored-grain pest. Small, usually dull-colored with narrow fore wings. Females lay an average of 40 eggs, which hatch into larvae that bore into grain kernels and feed on contents.



6. **Drugstore Beetle**—A general fender in stored products, including herbs and drugs in pharmacies. 1/10"-1/8" long, cylindrical, and uniform light brown. Body has a downy covering of fine, soft, silky hair.

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